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W D Koenig

1977

Hastings Reservation

Melanerpes formicivorus





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Walter D. Koenig

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Melanerpes formicivorusHastings Reservation, Monterey Co., Calif9 January

1300. While soaking up some rays on the roof of Red House, Pam and I noticed one Acorn Woodpecker hawking from a live oak up just beyond the enclosure behind the house. For  $\frac{1}{2}$  hour at least she stayed in this area, making infrequent forays out 40 meters or more into the area, returning to the same branch with some invisible food item. Eventually I determined she was banded and my best estimate for her bands were  $\text{M/Red-WH}$  /  $\text{Red-WH/Red-WH}$ ; this almost certainly is ~~the~~  $\text{M/DP-Yel}$  /  $\text{DP-Yel/DP-Yel}$  #314, another of the several ♀♀ caught last summer at Plaque during one of the numerous disturbances there and later seen once at Chongo.

1645. A call alerted me to the fact that there was still a bird up in the canyon above and just over from Red House; I couldn't see a thing around its legs but it was a ♀ and surely ♀314 still. She eventually flew in the direction of the old road going towards the Mellin Ranch area.

2 February

1500. On the way up Poison Oak Hill, 3-4 birds were together along the ridge above the "Road 2" area. One, who was perhaps not officially connected to the others, was identified as  $\text{Yel/Dr-Yel}$  #232 from Finch.

~~1530~~ 1530. Up at/near the PO Hill revolution site itself are several birds, inc. 1 who may very well be ♀316 [ $\text{M/Red-WH}$ ]

1540. There are quite a few birds hanging around here or checking the area out; unlike previous trips most appear unbanded, however.

1620. Just over the ridge is a cache of 4-5 birds, inc. ♂  $\text{LW}$  #330 and ♂  $\text{DrLW}$  #334; also a banded ♀ [♀316] and 1-2 unbanded birds.





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(2 February)

1700. At least 2 birds are along Robertson Creek between the Gate and the Mellin Ranch road (about  $\frac{2}{3}$  way or more towards the ~~road~~ <sup>road</sup>). One, calling a lot, was a banded ♂, but I could only see a L. Blue band on the lower left. I have no idea who he might be.

12 February

1400. Pam and I walked up Prison Oak Ridge. Once again there was an unusual amount of activity at the territory where the Thanksgiving Revolution was. Though not on the order of a full-scale revolution, there was a fair amount of chasing, fighting, lots of displaying, and so on; all in all it seems amazing that these birds still don't have their differences settled after nearly 3 months.

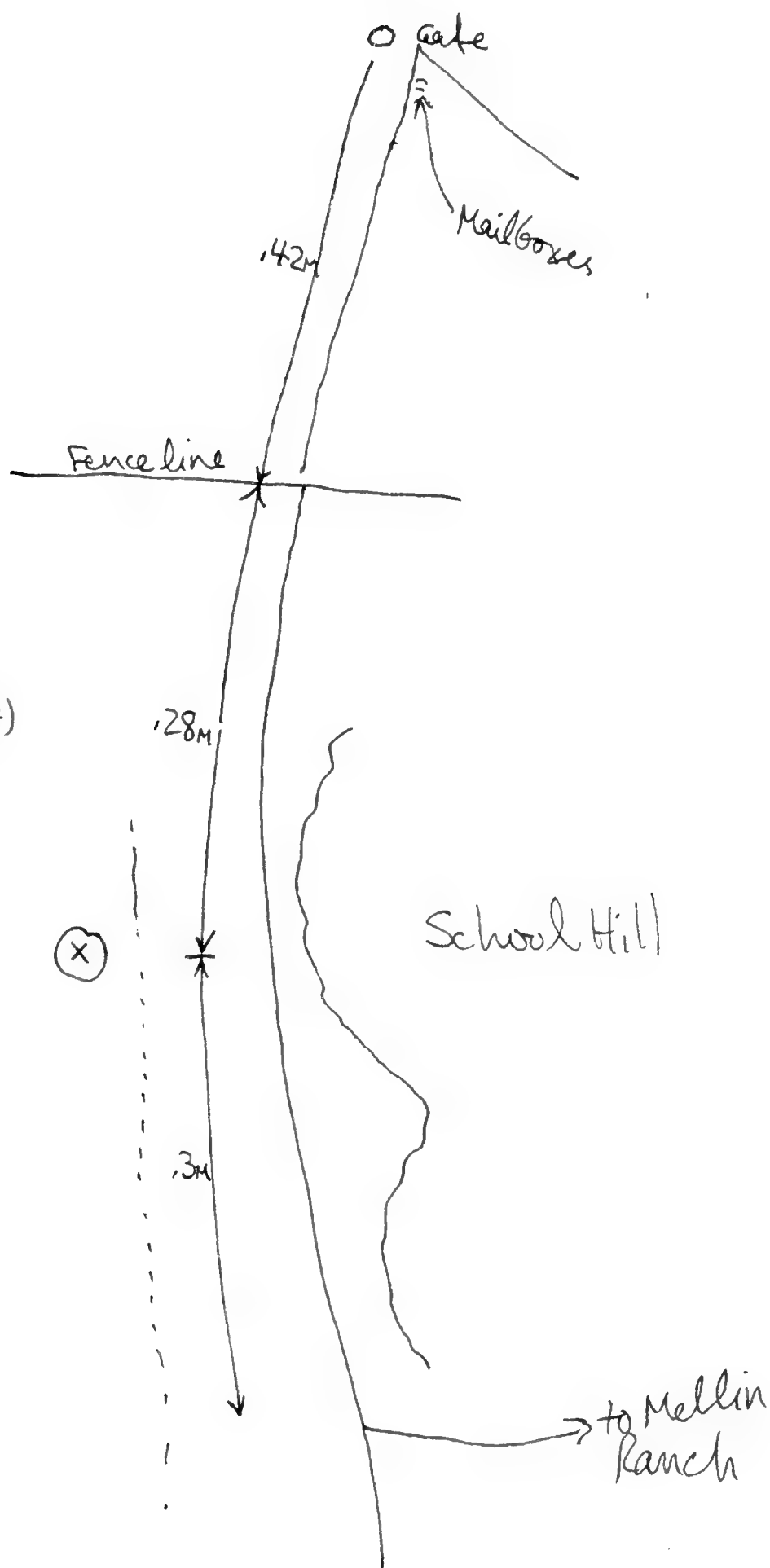
1500. Action has picked up. About 15-20 birds <sup>seem to be</sup> ~~were~~ involved. Lots are banded from November: ① ♀316, ② ♂325, ③ ♀327, ④ ♀329, ⑤ ♂330, ⑥ ♀332, ⑦ ♂334, ⑧ ♀337, and ⑨ ♀342. ♀316 was doing a lot of the chasing herself, acting as though she belongs here. In addition, there are several (5?) unbanded birds, all of whom so far seem to be ♀♀.

1600. As before. A fair amount of chasing, etc. going on.

18 March

1345. I returned to Robertson Creek, the area where I'd seen the birds on 2 February. Very close to the area I again saw 2 birds, and managed to observe at length the ♂, who was indeed banded, and after  $\frac{1}{2}$  an hour of close watching identified as ♂ <sup>M/L Blue</sup> ~~D Blue/L Blue~~ #323, the ♂ from MacRobert's! There are no granaries here (that I could see) so presumably he and the ♀ moved here when their stores at MacRobert's ran out and are trying to make it here on

Distance from Gate to  
where birds was (were)  
seen: .7 mile



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(18 March) sap and insects (I saw no foraging while I watched).

This is really neat! See the back of p. 2 for a map.

19 March

1140. On my way up to School Hill from Red House I am greeted by an ub ♂ alongside the knoll just across the old road from Red House. He seemed to be alone. (See map on back).

22 March

Noted 2 birds up Robertson Canyon in the same area where ♂ 323 was identified on 18 March. They were together in a Sycamore.

~~The interview here was taken up with a trip to the desert (Bishop) and to Berkeley.~~

~~19 April Explored the desert traps in the morning.~~

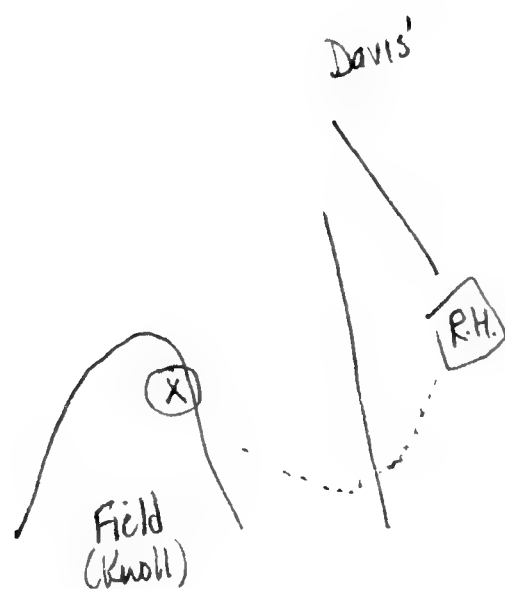
7 April

1100. While up at Lambert's, I could hear something big (revolution) going on nearby. I walked over to the scene, which was the old dead Valley Oak just south of Lambert, which I will call "Near Lambert." Indeed, a revolution was in full progress, with 20+ birds involved, who were about 95% ♀ (I finally saw 1 ♂ after 10 minutes). <sup>None were banded.</sup> I set up a net, which was not placed very well, but did catch 2 ♀♀ (356 and 357) by 1200.

1215. A real-looking copulation took place: ♂ on ♀, low in the tree!

Conditions being what they are, I'm going to take down the net and return with my camera.

The ♂ is doing more than his share of chasing <sup>(he's no doubt a resident)</sup>



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(7 April)

1220. Wasn't able to get to the net before I got a 3<sup>rd</sup> ♀ (#358)

1400. This still going strong. Took some pictures, then replaced the net with a 30'er.

1500. 4<sup>th</sup> bird (♀ub) caught, #359.1520. 5<sup>th</sup> bird (♀ub) caught, #360. The probability of catching 5 straight ♀♀, given an even sex ratio (and in the population as a whole it's biased towards ♂♂, of course), is already  $(.5)^5 = .03125$  (1-tailed).

1600. Taking net down and going home. There is lots of activity and chasing still, but it has mostly shifted to several peripheral foci about 50-100 meters away from the granary. Birds still do come to the granary, but there is less chasing there than elsewhere, and I suspect that they are mostly the "residents", while the thrust of the intruders have been pushed outside this core area. There are still probably ~20 birds still involved here altogether. They have also begun to get rather more wary in the granary, and as a combined result they seem to be successfully avoiding my net.

1630. Leaving. There are, by the way, a couple thousand acorns remaining in the granary here.

24 April

900. Went up Robertson Creek looking for ♂323, but was unable to find any trace of any birds there. Up the slope of Poison Oak Hill a ways were some AW calling, but there was no way of telling who they were.

27 April

Walked up Poison Oak Hill. From 1115-1200 or so I sat at the site of the Thanksgiving Revolution, during which time one ub ♀ came by, followed 20 minutes later by 3-4 birds getting





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(27 April)

together, one of whom was a ♀ with a Blue wing streamer on her left wing (no marks). Otherwise, there is just not a whole lot going on here.

1230. Up somewhat further (1/2 way to top) and just off to the S side was a territory with rather more action and 4+ birds. Several ~~♂~~ in fact were marked, inc. ♀ DBRW or IS/M #324 and ♀ DBLW res/M #333. This group has stores, among other things.

1235. In this group are 6+ birds; except for those 2 ♀♀ nobody else seems to be banded.

1240. As interesting as all this is, there's not much more I can make of it besides looking for a nest in a couple weeks, perhaps. There is rather more activity here than one would expect in a "settled" group<sup>\*</sup>; i.e. something certainly may have happened here pretty recently, but there's really not much way I can figure out what it was.

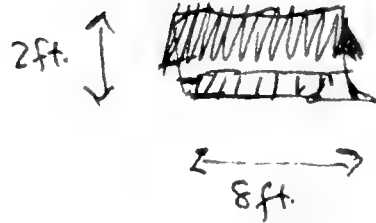
\* e.g. lots of open-winged full wakas among 3-4 birds, as one sees during/just after revolutions, but no chasing, best I can tell.

12 May

1030. Walked over to the group on Blomquist's down from Haystack Hill where the small cattle feeding station is located. Inside the hole I thought the nest was in, tapping was emanating. I called hello, and the bird looked out and then flew out, leaving the rasps of young nestlings behind. This is the first time I've known of a bird actually working on a hole while it was occupied by an active nest! I will definitely return to ~~get~~ band the babies here, which will be ready about 7 June, if the live. The group itself will be called GAZEBO. (see map on back). They do have acorns remaining.

Group Gazebo

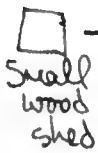
the Gazebo itself:  
small wood shed for putting  
out feed



Several storage trees and  
knagish snags are in the  
area and used by the birds.



Marsh



Small  
wood  
shed

Buckeye  
Woodland

Dirt road

fence

sewage line

Blomquist Knoll

Lower  
Barn

HNHR

Haystack  
Hill

HNHR

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(12 May)

1600. Walked up Poison Oak Hill on a quest for nests. The first group, on the knoll just before the 2 "hogpits", the quest was successful: after scaring 2 birds, I finally flushed a 3<sup>rd</sup> from a hole in a Black Oak, leaving several <sup>young,</sup> rasping babies. The group has lots of acorns; the hole is ~10 ft off the ground on the distal end of a limb and was marked beneath with a red tag saying "12 May (#1)". Since this group is just above Finch-R3, they should definitely be banded, and maybe even watched to look for banded adults.

1700. Second nest found is up the hill and then down toward the road side a ways in a tall Valley Oak. I'm not even sure where the granary for this group is, but ① the babies have hatched, and ② one of the residents is ~~RED~~ ♀ DBRW/R circle; bands L Blue/Red #336, who came to feed them. The tree was marked with a "12 May (#2)" red tag. (entire tree is circled)

1720. Nest 3 is in a large Blue Oak, gotten to by walking down toward the road from #2. Babies here sound young also.

The gully referred to at the right <sup>[Cross Gully next to tree 2, walk toward Arnold Spring / 2<sup>nd</sup> chaparral patch, about 80-100 meters]</sup> is in fact the gully leading down from the November Revolution territory, which is about 100m up from <sup>nest</sup> tree 2 (in fact, it may even be their nest). Up at the Rev. area there were several birds (not seen well except for one ad ♀), no stores, and nobody in any of the holes. The action, however, inc. several chases, one seen ~~involved~~ involved a bird with an Orange WS on its RW, who was being chased. I'm pretty unclear about group boundaries up here (perhaps they aren't sure either, at least right here).





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(12 May)

1830. Nest 4 is in a very tall Valley Oak (will definitely need the rope ladder) up a ways from the Rev. group and off slightly toward the road. A ♀ looking out at me finally flushed; I could not hear any nestlings from where I was - I suspect they haven't hatched yet. The area was marked with another labelled red tag. To find this tree, I put another red tag on a small but conspicuous Valley Oak right along the ridge just up from the tree [it says: "To #4 → (≈100m)"]. Walk toward Anastasia Canyon from that tree (not toward Arnold Flat).

1900. Up from the roadside to #4 along the crest about 40m is another group with lots of big trees, none of which seemed to have any promising holes. Going toward the road from there is about 80-100m is the area I watched on 27 April. There was still some chasing going on here, but none of the birds I saw had wing streamers. I also did not find any holes/nest here, but I was rather beginning to poop out. So much so, in fact, that I began heading down toward the road at this point.

17 May

Found 2 nests over on Lambert's: 1 for the group that lives in the gigantic Valley Oak up past the bar-b-que pit along the road past the intensively watched group (bird in hole not flushed) and 1 for the Near Lambert Group (bird flushed - no nestling sounds inside, probably incubating). Now if I could just start finding some nests for the groups in the study area...

18 May

1800 - Up Poison Oak Hill again: ① Nest #1 has babies in it still. ② Calls but no birds at Revolution area. ③ Nests #2-4 not checked. ④ On Ridge just past sign for #4 is the group with lots of big trees; several were in a roost hole in a tall



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(18 May)

Valley Oak with numerous holes in it (it was the 2<sup>nd</sup> from the top on the S facing side); it very well may not ~~have~~ be a nest but I marked the area below with Red tag #5 anyway.

Wandered all the way to the top, down slightly toward the road (where there's a "big" group, over to the Parkland, then down from there, finally coming to the group which uses the very tall snag that can be seen from above the Revolution area. A bird was in a hole there (unfortunately I would need the ladder for sure); I can't be sure, again, that it's a nest, but it was marked as #6.

19 May

1715. Over at "Near Lambert", no bird was in the hole this time, so I did not go up to saw it open. A bird was in the hole again at the far group with the giant granary (a name for which I'll have to come up with), and also a ♀ was in a high hole (plus several others in the vicinity) ~~at~~ in the granary of the group next to the barbecue pit; she flushed but I didn't for sure hear anything from inside. That group, however will be known as "Bar-b-q" (it is directly between the Lambert group and the far group).

25 May

1700-1900. Wandered around on Blouquist's down past Gezebo (where baby sounds are still rising from the nest) to the area by and around the Water Windmill. In general I was pretty unsuccessful finding nests, but I did end up coming up with

Near  
Windmill

2: One in the territory with the 2 huge Valley Oaks over toward HNHR (♂ in hole would not come out) and a 2<sup>nd</sup> in a Valley Oak right by the dry vernal pool just across the fence from Gezebo! There, a ♀ flushed leaving relatively young babies rasping.



Melanerpes formicivorusHastings Reservation, Monterey Co., Calif.26 May

1330. Watching the nest by the fry pond over on Blouquist's (near [N of] Gazebo) from hide. ♀ in hole. Looking for any obvious banded birds.

1342. ♂ub came with food. ♀ wouldn't leave the hole yet, though.

1355. A 2nd ♀ came to feed. She flew off; then finally the ♀ in the hole flew out.

1430. I'm clearly a disturbance here, and it's time to go anyway, so I'm off. In any case, there are at least 2♀♀ and 1♂ here, and the 2 birds whose legs I saw for sure (1♀ and 1♂) were unbanded.

1440. Now watching at Gazebo. No one in hole.

1500. ♀ub here.

1520. ! Wow! ♂or-carn/or Yel RW #237 came to feed babies! He's one of the 1<sup>st</sup>-yr. birds I caught up at Lower Haystack <sup>in</sup> ~~at~~ August 1975! (Also seen there 10 May 1976). Far out!

1525. ♂ub fed.

1540. ♂237 fed again.

1610. Leaving. So here, there are at least 2♂♂ (♂237 and ♂ub) and 1♀(ub). Good.

27 May

1330. Over on Lambert's, no one was in any hole at Bar-b-q, nor at Near Lambert; a bird was inside the same hole at the Far Lambert group, however.

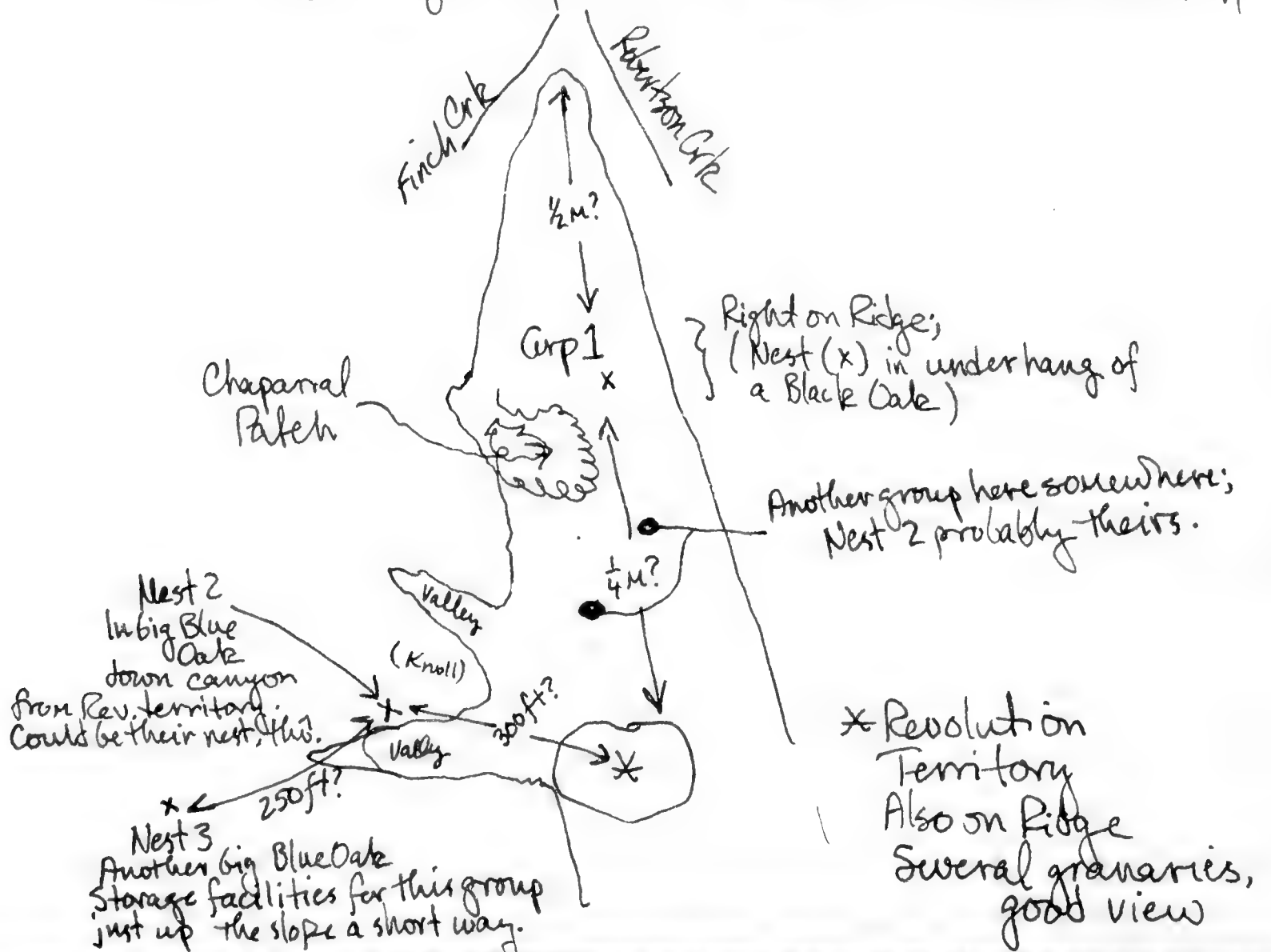
30 May

1400.-1900. Walked up Poison Oak Hill (with the rope ladder!) and opened the 3 nests I found on 12 May (I also checked the 4<sup>th</sup> and 5<sup>th</sup> that I thought might be nests, but saw no sign of anything at either). The run down was as follows:

Nest 1 (Ridge). 4 babies (#374 to 377), about ~~18-20~~ 24 days old (~~3~~); all in good shape except #375 (who looked in shock and



30 May Rough map of the 3 nests on Poison Oak Hill



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(30 May) will have to be checked again). This group has acorns for sure.

Nest 2 (South Slope). Bird in the same hole as I arrived. Instead of nestlings, however, there were 2 fresh eggs in the hole, which I marked! Since I know they did have nestlings on 12 May (and not old ones especially) I'm pretty sure that their first clutch must have failed shortly after I found it, and that this is now a second attempt (something no one else on the reservation seems to have attempted as yet!). The alternative (first clutch fledged already) seems unlikely, as the clutch would have to have been  $\approx 10$  days ahead of any other active nest on the entire reservation. In any case, I should return and measure the complete clutch in several days. Since I'm not sure where the storage facilities of this group are, I don't know whether they have stores or not.

Nest 3 (South Slope). 3 babies (#378 to 380), who by their development can't be <sup>much</sup> ~~any~~ older than 18 days. This group does have stores.

31 May 1800. Returned to Nest 1, ~~not~~ up Poison Oak Hill (Ridge) where 1)  $\geq 4$  adults flushed from the area as I arrived  
2) j375 did indeed die, and was well along the road to fouling up the nest. Cause is unknown, but given its weight it was presumably somehow injured yesterday when I removed it from the nest. In any case, the carcass was removed.

3) The other 3 babies were all fine; j374 was ready to make a run for it on his own, in fact (but couldn't fly yet).



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Melanerpes formicivorusHastings Reservation, Monterey Co., Calif.1 June

1000-1200. Opened the 2 nests just over on Blomquist's side of Haystack Hill. At Gazebo, only one baby, #381 made it; this group does have some stores remaining. At the 2<sup>nd</sup> group (just past the pond on the other side of the fence from Gazebo) nothing at all was inside the nest hole, thus their attempt failed entirely. Though I can't say for sure I know where all the storage facilities of that group are, the limbs that I did see in the trees near the nest did not contain any acorns. At least 1 bird was in the vicinity there, however.

2 June

2000. Checked the Poison Oak Hill #2 (South Slope) nest, where no one was in the hole, but there were 4 warm eggs:

laid prior  
to check on  
30 May { ① 26.8 x 19.6  
                  ② 26.4 x 19.8

laid since  
then { ③ 26.8 x 19.6  
          ④ 26.4 x 19.4

6 June

900. The Poison Oak Hill #2 (South Slope) nest had an adult incubating and the same 4 eggs as found on 2 June, all of which were already becoming opaque.

4 July

1700. Went up to Poison Oak Hill #2 (South Slope) nest to band the babies, who should have been 20+ days old. Instead, however, we found what clearly <sup>have been</sup> may ~~be~~ a case of on-the-nest predation. Inside the hole <sup>were</sup> ~~was~~ the remains of an adult ♂ Acorn Woodpecker (bill length 33.4mm, a few red crown feathers still attached to forehead), his head severed, half his skull missing (the bottom and the right side), and well decomposed (only a few traces of wet flesh still present-





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(4 July) otherwise he was being cleaned off by the ants). There was no trace of eggs or young; and due to decomposition it was pretty hard to decide what, if anything, had been eaten off the adult's body. This is neat indeed, but unfortunately nothing can be said with certainty. The facts are as follows:

- 1) Bird died quite awhile ago (surely 15 days +).
- 2) Bird was a ♂ (unbanded); ♂♂ do spend the night on the nest

- 3) Babies would have hatched ≈ 22 days ago.

The possibilities are more or less as now follows:

- 1) Predator (owl?) killed incubating/brooding adult ♂ as he was spending night on nest, ate part of head and eggs/young. Not unreasonable given the circumstances.

- 2) Bird was predated in hole after nest had already failed (nest must have failed soon after start of incubation?). Not too likely.

- 3) Bird died in hole while incubating/brooding; other birds removed dead young, pecked dead adult.

Possible. Why, though, would a sick or dying bird try to spend the night in the nest? Seems more likely that he'd go off to die on his own, leaving the babies to their own devices.

Clearly this is the best instance of possible nest predation I've seen yet. It would be neat to be able to pin it down further, but it's hard to get anything



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(4 July) with these birds.

By the revolution territory, I saw 2 wingstreamered birds - neither of whom could be identified for sure (one was L&RW (♀316 or ♀339)); just up over the top above the revolution territory (going down into the saddle on the SW side) was another wing-streamered bird: L&RW-#330, plus another bird.

22 July

1030. Just 75m or so further along the dirt road from Gazebo is another group with 3-5 (minimum) adults ~~at~~ and at least 2 babies, <sup>(1ubseen)</sup> At Gazebo itself I flushed one bird but was unable to pin anyone down.

25 July

1030. In that tall Valley Oak on the Lambert Group side of "Near Lambert" are 2 unbanded babies, origin not clear but who would seem to be from Near Lambert itself.

1040. One is now ~~sap~~sucking in a Live Oak below the tree.

1045. No adults seem to be forthcoming. In any case, they certainly do not belong at Lambert.

30 July

800. An AW was right behind Red House, possibly attracted by water and/or the captive in the back porch.

Lots of AW (12+) seen by Pam Williams at the <sup>Arnold</sup> Spring this morning - inc. birds from Black Oak, A1, Big Tree, Keep Out, Lambert, plus lots of unbanded birds, 1 of whom was caught (a juv!) as #418.

5 August

j418 caught by Pam at the spring again, along with j410 from Black Oak.

29 August

j410 caught by Pam at the spring.

30 August

j410 and ♀417 (along with a ub♂) seen by Pam at the spring.



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1 September ♀417 and ♀<sup>Mauve/LP</sup> #207 (from A3) seen at the spring upon the Arnold. j410 got caught here also

18 September Seen by TAM at the Arnold Spring this morning ♂123 (Upper A2); ♂266 (A1); ♀417 (banded by PLW at the spring) and ♂133 (LA2 - seen quite well).

30 October While walking around over on Blouquists' this afternoon I went by 1) Gazebo, where I flushed 1-2 birds, saw plenty of stores, and did not see the wing-streamered bird; 2) the group whose nest I found near the dry pond across the fence from Gazebo, where I also flushed a bird and found stores in the nest tree itself and a <sup>2nd</sup> large Valley Oak nearby; this group will be referred to as Blontwo in the future, and does indeed exist; and 3) a surprise - a heretofore undiscovered group, complete with a nice, but relatively inconspicuous Valley Oak granary, several birds, and 2-3 nice roost holes in the knoll between Blontwo and the field leading to HNHR, that is in the trees just across the dry pond from Blontwo; this group, which I should watch soon as I have no idea who might be in it, will be referred to as Blomone. See rough map on back of page.

6 November 945. Watching Blomone from hide. 3 birds flushed from the granary when I arrived. ← from Haystack-Blouquist!!

955. ♂<sup>Yel-Red/M</sup> RW #246!! here with an acorn.

1007 ♂ back with ♂ sub. 1032 ♂ Or RW back again. No ♀ yet.

1035. ♂ ♀ sub, chased away an intruder. ♂ Or here again.

1058. ♂<sup>Red-LB/Yellow</sup> #300 here with an acorn [also formerly a Hay-Blom bird!!]

1115. Leaving. Not bad - half the group's banded and I didn't

location of groups on Blomquist's

⑤  
Haystack-Blomquist

⑤  
Hail Pond



Sag Pond

Gazebo

Fence on Blomquist's

Blue Oak Knoll

Dry Pond

Blomquist

⑤  
Blomquist

nearly  
1/2 mi

Pump

WYK



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(6 November) even know it existed before last week!

14 November1305. Watching at the far Lambert group past Lambert Flats group (i.e. by the Bar-b-q pit). The birds have lots of stores here.1315. 2 ad ♂♂ + a 3<sup>rd</sup> bird. ♀ub. A 2<sup>nd</sup> ♀ at least as well.

1335. I've had 20-30 good looks at birds, and all were undisputably unbanded. There are at least 5 here, and very possibly 6.

1350. Now watching at Far Lambert. These birds have lots of stores.1405. ♀ub working stores now. A 2<sup>nd</sup> ad ♀. ♀ub. 2<sup>nd</sup> ♂.

1440. Still no banded birds.

1450. Leaving. Not a real good watch, but still no sign of any banded birds after 15-20 looks. Group size 4+

25 November1320. Low on Poison Oak Ridge are 3+ birds who flew over across Robertson Canyon to a snag by the <sup>bird</sup> road. This is probably somewhere above Road 1 and these could be R1 birds.1325 4<sup>th</sup> bird landing appeared to be ♂ub. A ♀ub there too. Not R1.

1350. I'll have to check down there - they almost look as though they may really be living down there! (?)

1345. At P.O. Hill #1. Not much activity. 1 bird flushed. Some stored acorns, but the granary is not very full at all.

1400. At the next big granary along the trail before the Revol. one there are some stores. Watched for awhile. ♂ub came for a couple minutes.

1430. At the Revol. Territory there are lots of acorns stored and I thought I'd heard some birds here, but later after 1/2 hour none has as yet showed up.

Things are very quiet up here indeed.

1610. There are at least 2 birds (♂ub seen) living (or at



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(25 November) least appearing as such) in Robertson Canyon in the same general area where the 2 birds (inc. ♂323 from Mark Roberts) were last winter. It even appeared as though there was an old tree on the edge of PO Hill where there might be some storage facilities, but I couldn't be sure. This is not near where I saw <sup>a</sup> group on the way up.

25 December Walked up to the Arnold Cabin. Along the way we discovered a "new" granary, which has acorns stored in it! It is just next to the road past the old, unused ARF tree in an area where I have indeed seen birds (always assumed to be ARF, too birds before). The tree is an old Valley Oak; most of the stores are in the top (dead) limb.



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Melanerpes formicivorusBehavioral Notes on a Captive23 March

The captive, now approximately 7 months old, is in full body and ~~and~~ flight-feather molt:

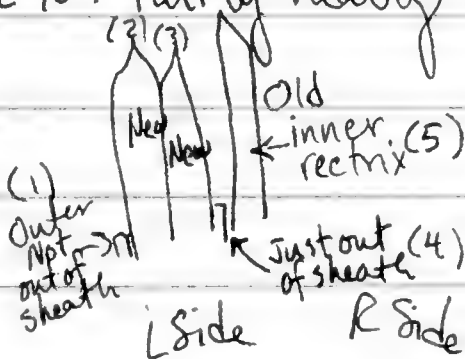
Crown: 20%. Nearly complete.

Body: 120%. Fairly heavy

Tail:

Wing:

Wing:



Same on Right side except  
old outer rectrix not out yet,  
was plucked by me.

LWing: 7th and 6th primaries in sheath,  $\frac{1}{5}$ th length  
8th and 9th " old  
1st - 5th " New

Secondaries - no molt, apparently old.

RWing 9th primary Old  
8th " just out of sheath  
7th "  $\frac{4}{5}$ th length  
1-6 " New

Secondaries old.

Do all 1st-year birds molt in early spring?? What's going on?







1977

Walter D. Koenig

1

Melanerpes formicivorus

Chongo

Hastings Reservation

26 January

1600. Counted stores: 820; and removed a sample of 40 acorns.

18 February

930. Watching.

1030. To nobody's surprise, things are 100% quiet down here. I did hear some calls up and over on Red Hill at one point, however, and I saw one bird flying around across the gulch.

I do see 2 AW's sitting in one of the tall trees over on the side of Buckeye Hill over toward the bend in Matrone Canyon.

22 February

Watched roosting way over at the tree with the 2 holes over on Buckeye, where at least 3 birds came to roost.

16 March

1100. Counted stores: 620. No birds seen in the area.

21 April

1415. Walked over noting: 1) stores to remain yet in the granary 2) a bird was in a new hole in the sycamore, ~~just~~ just below where I trapped them all in December '75; 3) there were several birds over in the area around the roost hole up on Buckeye Hill, including 1 bird sitting just below the main hole when I first looked, but none was in the hole when I walked over and checked.

Returned at dusk, when apparently 1) nobody roosted over on Buckeye Hill 2) most of the group roosted in the main storage tree and 3) very possibly 1 bird roosted over in the sycamore, lending some credence to the possibility of there being a nest there.

22 April

1030. Now there is a bird in both holes in the sycamore; best I can tell a ♀ in the lower and a ♂ in the upper.

Lower hole was opened (from the back side) and had 5 fresh, good eggs.



1977

Walter D. Koenig

2

Melanerpes formicivorusChongo Nest Record

21 April 1415

22 April 1100.

Hastings Reservation

Bird in hole in Sycamore

Hole opened: 5 eggs, all fresh  
(=translucent)

① 24.1 × 18.8

② 24.1 × 18.7

③ 25.2 × 18.9

④ 24.3 × 18.2

⑤ 25.1 × 18.4

25 April 1700

Bird in hole.

27 April 1800

Still 5 eggs; warm; bird incubating.

5 May 1230.

All have hatched: (not individually marked)

①

② Blk-BP(n)  
371③ DB-DP  
369④ ~~LP-LP~~ 370  
LC-LP⑤ LP-DB  
368

5.5 gm

8.4 wing culmen

8.6

8.7

8.5

X  
gone

45.0 24/15.9

48.5 26.5/16.7

43.3 26.5/15.8

37.9 22/14.9

81.3 76/19.3  
21.3/53/3180.1 80/20.5  
22.0/56/3570.5 66/19.9  
22.4/41/3465.9 68/19.2  
19.6/38/28[5 May 1230  
Day 0]

17 May Day 12

28 May



1977

Walter D. Koenig

3

Melanerpes formicivorusChongoHastings Reservation25 April

1715. Bird still in nest hole. Watching.

1750. 2 birds appeared briefly by the nest tree: ① ♂ Blue/ #234 and a ② ♀.

1815. That, apparently, was the only changeover. The few other calls heard were all over from the lower side of Buckeye Hill.

27 April

1800. Went out here to check the nest. An incubating bird was inside when I arrived, and the same 5 eggs were still present.

3 May

1730. Bird incubating. I didn't flush the bird to make sure (it was pretty cold out) but I couldn't hear any squeaks. Hatching, however, should be in the next day or so.

5 May

1230. Calling up to the holes, a bird looked out of the hole above the nest hole rather than the nest itself, which was rather odd. I went up, however, and all 5 babies have indeed hatched, and probably last evening/this morning. The weather is horrible, though - cold, windy, and some drizzle, so rather than fiddle around with them too much I weighed them and returned them and left.

9 May

1735. Bird in nest hole - maybe they've survived the cold, wet weather after all.

17 May

1045. ! Bird in hole! 4 babies in hole! Doing fine! Were measured, etc. Eyes are just opening, Egg tooth still present, remiges/rectrices 3-4 mm long, not out of their sheaths yet. Incredible!

18 May

925. Watching. Almost immediately, an intruder was displaced from the storage tree by a ♀ whose legs were missed, but who had a





1977

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4

Melanerpes formicivorusChongoHastings Reservation

(18 May)

distinctive crown:



935. ① ♀ub, back hawking in granary

940. ♀ub displaced an intruder twice, both times another ub ♀.

942. ③ ♂ub landed in the granary with a large Apid in his bill, greeting the ♀.

945. ♀ chased a (nother) intruder over near the nest; ♂ still in granary.

950. ♀ and a 2<sup>nd</sup> ♂ eating (drilling on) acorns now.952.!! 2<sup>nd</sup> ♂ is ③ ♂ M/Yel-LBlue #252; plus a 3<sup>rd</sup> ♂ just landed, ♂ Da/Red-LG #319! Far out! ♀ went to feed babies acorn bits.

1000. Both ♂ub and ③ ♂ Wn-Red #234 came with bills-full of insects.

1015. ♀ got another billful of acorn as a ♂ub returned with a billful of insects.

1025. Several of the ♂♂ (319, 252) are back in the granary. Pretty good, and I suspect that's everybody. Leaving.

28 May

1800. Came and banded the babies, all 4 of whom are in fine shape, as #368 to 371.

2 June

1215. Counted stores: 231

2 July

800. Watching from hide.

820. Several birds are calling below the granary - sap sucking?

825. ① ♂ Wn/Red #369 in granary pecking away at an acorn (he was first seen with a whole acorn in his bill)

830. ② ♂ Wn-LP/M #370 also here; ③ ♂ R-W/Red #371.

837. ④ ♀ub now in granary. j371 pecking at an intact acorn.

905. 2 adult ♂♂ and j369 over by the nest. j369 and one of the ♂♂ flew across the canyon. 2<sup>nd</sup> ♂ is ③ ♂ub.

935. ♀ub, j369 and 370 in granary again. j369 pecked



1977 Walter D. Koenig

5

Melanerpes formicivorus

Chango

Hastings Reservation

(2 July) dominantly at j370. The ♀ occasionally coming over and pecking both of them. (Both are, of course, begging obnoxiously).

954. ♂<sup>M/LP-LB</sup> #252 in granary. Also here now: ♂<sub>ub</sub>, ♀<sub>ub</sub>, j370.

1015. j371 and ♂<sup>M/DB</sup> #319 in granary. ♂<sub>ub</sub> just fed j371 some acorn bits.

1020. Both remaining birds here now: ♂<sup>Blk-Red/M</sup> #368 and ♂<sup>LB/wh-DB</sup> #234. j368 dominant over j371 while both begging at ♂<sub>ub</sub>. j369, ♂319 also in the tree.

That's everybody; furthermore, it's clear that there are still acorns here, which I would go count if I had my binoculars.

1030. Leaving. Birds are pretty much gone from the granary now.

4 July  
30 August

900. Counted stores: 176

840. Watching. Nobody immediately apparent anywhere.

855. ♂<sup>DB/wh-M</sup> #252 just chased off an <sub>ub</sub> ♂ intruder from the granary. ♀<sub>ub</sub> here also.

902. ♂<sup>LB/Oc/LG</sup> #370 flew to granary with a small green acorn which he proceeded to peck open.

942. ♂<sup>Blk-Red/M</sup> #368 drilling at an acorn. Molting to ♀.

1025. ♂252 back in granary briefly with a green acorn.

1031. ♀<sub>ub</sub> flew in with a green acorn, holding it by the twig still stuck to to cap.

1036. j368 back drilling at something or other.

1047. ♂<sub>ub</sub> now in granary.

1104. ♂<sup>R-W/M</sup> #371 with green acorn. Also apparently molting to ♀, but is very scruffy looking and not as far along as #368 (whose coronon is about  $\frac{1}{2} + \frac{1}{2}$  at the moment).

1140. Leaving. Not bad for a pre-storage season watch. j369 is



1977

Walter D. Koenig

6

Melanerpes formicivorusChongoHastings Reservation

(30 August)

very likely gone. Others will be checkable as soon as storing begins in earnest.

Stores here, as expected, are exhausted.

9 October

1000. Net up, watching from hide.

1023. ① ♀ub hawking over by the nest tree.

1039. ② ♀ WH/DB-Red #369, hawking in the storage tree.

1047. ③ ♂ub.

1113. ♀ub, ♀369, and ④ ♂DB/LP-LB #252 over by the nest area.

1130. Caught ♂252 in the net.

1150. Back watching.

1215. ⑤ ♂ LG-LP/LG #370.

1250. Leaving to put up traps. The birds aren't around enough to make this especially profitable today.

10 October

730. The ambush, done only on the roost hole in the far Blue Oak up on the hill, was moderately successful. Apparently only 3 birds <sup>were</sup> ~~roosting~~ roosting there - the first got away, the 2<sup>nd</sup> I nearly squashed between the tree and the trap but turned out to be ♂319 and apparently unharmed, while the 3<sup>rd</sup> was by good fortune an unbanded ♂, now ♂424. Since I could not find anyone else roosting on this side of the canyon, I presume the others might be over in that tree way up on Buckeye.

14 October

1725. Here watching (with the net up) for another short stint.

1745. ① ♂ LB/WH-DB #234. Not bad even if he's the only one I get.

1800. ② ♀ub in the granary with an acorn. ③ ♂ M, #252. ④ ♂ LG/LG #370.

1830. ⑤ ♀ Blk/Yel #368.

1835. Leaving. It's getting dark and the birds are in their "sitting around stage prior to ~~roosting~~ roosting."





1977. Walter D. Koenig

7

Melanerpes formicivorus

Chongos

Hastings Reservation

✓ 12 December

1100. Counted stores: 1409. They've done quite well here!

1110. Watching.

1205. Finally a whole group of birds appeared simultaneously in the granary, inc. ① ♂ DB-Or/DB-Or #424, ② ♀ ub, ③ ♀ Red-Blk/Yel #368, ④ ♀ Wh/Blk-Red #369, ⑤ ♂ LG-LP/LG #370.

1220. ⑥ ♂<sup>M</sup> DG/red-LG #319 in sycamores.

1230. A few birds still around but all is pretty quiet now.

1235. ⑦ ♂ LBlue/Wh-Red #234 over in sycamores.

1300. Leaving. Not bad. The babies were fairly open, leading me to suspect strongly that ♀371 is indeed no longer with us. The adults were rather more secretive, and ♂252 may certainly have been missed.

1302. Yes indeed: ⑧ ♂ DBLue/Wh- #252 over in the sycamores.

1310. Now leaving. I've seen everybody well at least twice and I'm pretty satisfied that I've gotten the lot of them.

17 December

Purge: j♀371. Seen on 30 August, not seen 14 October → disappeared about 21 September ± 2 weeks.

21 December

Walked out here to discover that the limb with the 2 holes used for roosting (and nesting in 1973-74) in the Blue Oak granary fell during the last week, no doubt in last night's wind storm.



1977

Walter D. Koenig

1

Melanerpes formicivorusBuckeyeHastings Reservation26 January

1640. No birds seen here, but the stores are holding up nicely with perhaps 2000-3000 still in the tree.

21 April

1500. Still lots of stores; nobody seen in the area, however.

3 May

1715. Flushed one bird from the granary; he could have come from a hole. I couldn't find anyone else, however.

9 May

1720. Bird flushed from '76 nest hole - the one way out at the end of the broken limb. No rasps heard inside.

17 May

1145. Nestling rasp(s) heard from hole. If you are going to try and get up here, it should be during the 1<sup>st</sup> week in June.

29 May

1700. With Andrew helping me, I somehow managed to get up to the hole, open it, and the 2 babies (who were ~25 days old or so no less) and come down alive. Never again. They are #372 and 373). There are still plenty of acorns here.

30 July

900. In hide watching.

915. 3 birds here, all adults I believe: ① ♂ub, ② ♀, ③?

925. ♂ub sunbathing in granary now.

937. ♂ub eating an acorn. ② ♀ub hawking here. ③ ♂ub hawking here also. No sign of any babies.

957. Got one: ④ jDB-red/m #373. Eye is almost white already.

1115. Leaving. Birds are spending little time here - j373 was here only momentarily; j372 certainly could be here somewhere.

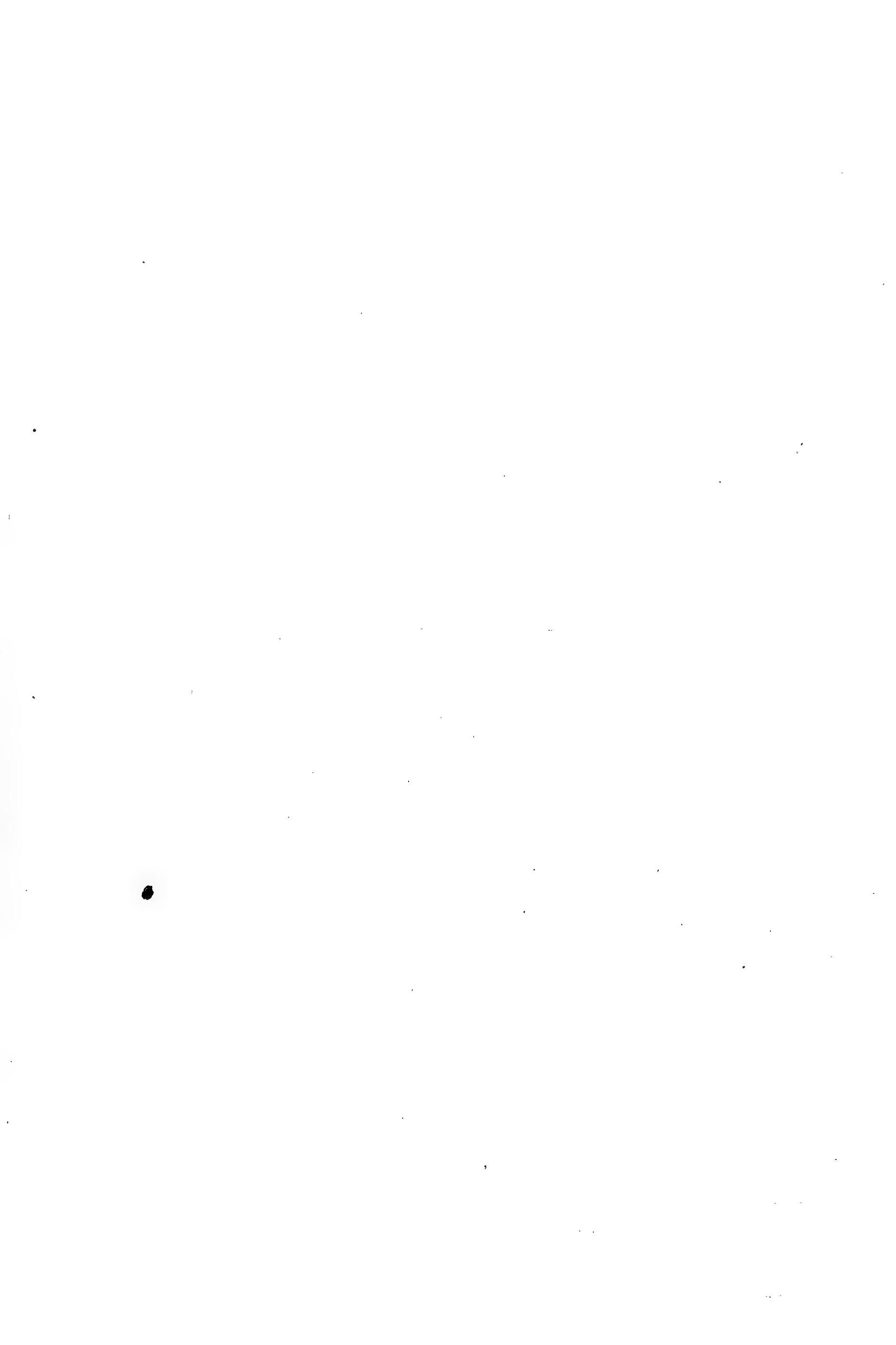
There are acorns remaining for sure, however. (Plenty of them)

11 November

♀372 seen at Plaque!

17 December

Looking back through my notes I realize that the 2 banded intruders I saw at Plaque on 7 October were most probably ♀372 and ♂373. See Plaque notes for details.



1977

Walter D. Koenig

1

Melanerpes formicivorusPlaqueHastings Reservation13 January

Took a sample of 40 acorns from Plaque tree and then counted stores:

Plaque: 1220

2<sup>o</sup> tree: 73

Tel. pol: ~40

133314 January1645. ♀157 in 2<sup>o</sup> tree.17 January1330. ♂<sup>Red/Or</sup>#22 and [a] ♀ over in the trees by the upper barn.1350. ♂22 in Plaque tree; also ♀LB-wh<sup>#</sup>157 eating an acorn.

I seriously think that these are the only 2 birds here now (and have been for some time, most likely).

18 January1630. ♂22 and ♀157 sitting peacefully at the top of Plaque. Still no sign of a 3<sup>rd</sup> bird.24 January

1220. 3 birds flushed from Plaque together.

26 January1720. There are 3 birds sitting here quietly about to roost: 1 atop Plaque, a 2<sup>nd</sup> atop the 2<sup>o</sup> tree, and a 3<sup>rd</sup> in the row of trees by the upper barn.28 January

1130. ♂22 hawking from top of Plaque.

14 February930. Several birds, including possibly an intruder, in the 2<sup>o</sup> tree. By the time I stopped to look 3 remained, who were the banded ♂(22) and ♀(157) plus [the] unbanded ♂.6 March3 woodpeckers seen together by upper barn. A [second] Starling shot out of the 2<sup>o</sup> tree7 March1020. ♂<sup>DB-Red/Or</sup>#22 in Plaque tree.

Counted stores: Plaque tree: 1140

2<sup>o</sup> tree: 0

Etc: 2

1142



1977

Walter D. Koenig

2

Melanerpes formicivorusPlaqueHastings Reservation2 April

945. Walked to the labs to discover lots of activity here, with 6 or so birds flying around in the 2° tree and Plaque. I wasn't able to watch until about 1115, however, by which time things had settled down considerably. First 3 birds were together in the 2° tree, these then dispersed. At 1130 both ♂22 and ♀157 were together in Plaque. ♀157 ate part of an acorn in the 2° tree.

1140. An unringed ♀ was chased out of the 2° tree, probably by ♀157.

1145. Several more AW are above the labs on the side of the hill - chasing going on now among 4-6 birds.

1147. 3 birds together in 2° tree - ♂22, ♀157, and ♂ub. Apparently the effects of the temporary invasion have not been great.

3 April

3 birds definitely seen together at dusk, roosting somewhere in the trees by the labs.

4 April

Counted stores: Plaque tree: 1111

14 April

630. An ambush at the telephone pole netted all 3 birds, finally, including the ub ♂, now #361. All 3 were given wing streamers.

700. Working in the office processing the 3 birds, I heard some wakas outside, where 2-3 birds were in the area displaying and taking acorns from Plaque. About 715 I came out with the scope, by which time there were 6-8 birds here, all ub best I could tell, and mostly ♀♀, though I did see 1 ♂. Already some good chasing, carriking, drumming, and all the amenities of





Melanerpes formicivorusPlaqueHastings Reservation

(14 April) a real revolution were shaping up. My analysis is this: with no group here, the 1<sup>st</sup> 2-3 birds keyed in, began checking things out and making some noise. This attracted the others who, being intruders in the sense that they weren't the 1<sup>st</sup> birds here, began displaying in appropriate fashion (Garricking, drumming, etc.). Chases ensued, attracting more birds, etc. Importantly, the first birds here (at 700) did not Garrick or drum, I think, but only waka'd conspicuously.

725. Let the residents go, fearing this whole deal might otherwise easily get out of hand entirely. As it was, the residents began chasing out the intruders forthwith, and activity was quite high but apparently not escalating by 745.

940. 2 nets up in Plaque. There are perhaps 8 birds still here (5+ intruders). All 3 residents are busy displacing intruders. Calls, chases are frequent, but still not totally out of hand. Obviously it is pretty close to being so, however.

1000-1030. Caught 2 birds, 1♂ (#362) and a ♀ (#363). There is still some chasing and quite a bit of Garricking, but the number of birds is down to 6 or so and activity is lessening. The residents are displacing intruders prominently.

1200. Activity much lower.

1300. Activity has virtually stopped altogether.

1345. All still warm and slow here.



1977

Walter D. Koenig

4

Melanerpes formicivorusPlaqueHastings Reservation15 April

930. The 3 residents all sitting atop Plaque together; no undue amount of activity here.

18 April

Some chasing was going on up here in the morning.

19 April

1800. ♀ RRRW #157 in 2<sup>o</sup> tree. ~~at 1800.~~

1820. ♂ Or/M #361 in 2<sup>o</sup> tree; ♀157 in Plaque.

20 April

Watched at dusk. First 4 birds appeared in the top of Plaque: ♀157, ♂22, and 2 intruders who were summarily displaced. Several minutes before dusk really set in, these 2 birds did some mounting - a brief ♀/♂ followed by a more extensive (4-6 seconds) of ♂22 mounting the ♀. ♂22 Then flew to the trees by the upper barn, near where I could see the 3<sup>rd</sup> bird. Just before dusk all 3 birds reappeared atop Plaque - ♂361 tried to mount the ♀ but the ♀ walked out from under him; ♂22 did not mount her again this time. They roosted right after this in the Blue Oak by the labs (all 3, I think).

21 April

1400. All 3 birds here; Monica watching.

22 April

We all watched roosting this evening. Pam saw 2 birds only roost in the hole by the lab, but thought there might have been a third in the vicinity. Obviously some careful searching will have to be done for other holes in the area.

See Monica's notes for daily reports on this group from now on through until we find a nest.

23 April

Pam watched the hole by the office (which I'd opened this afternoon) but nobody came to roost. No doubt the class here this evening may have been something of a deterrent.



1977

Walter D. Koenig

5

Melanerpes formicivorusPlaqueHastings Reservation25 April

All 3 birds here at dusk, apparently roosting in the trees by the labs.

29 April

Watched here for several hours in the morning, partially with Monica. Everybody's here, with the ♀ and ♂22 still rather prominent (often sitting together atop Plaque, etc.) while ♂DBW sort of lurks in the shadows and is only seen occasionally, and then often by himself. The most interesting event this morning was when the ♀ began Garricking rather gratuitously, and shortly thereafter flew to the 1/4-finished hole in the far telephone pole (by Bell's), sat near the hole occasionally looking inside and Garricking regularly for several minutes (meanwhile ♂22 was atop Plaque and he seemed to pay no attention at all to the ♀). Eventually, after 5-8 minutes of this she flew back into Plaque.

Birds were also seen flying to the bridge area, where they were eating catkins from the hybrid lobelia x there.

1950. Back for roosting. Again ♂22 and the ♀ were together atop Plaque, after awhile the ♂ mounted the female for several seconds (longer than a normal pre-roost mounting); almost immediately the 3rd bird (the 2nd ♂) flew up to the same area, at which instant the other 2 birds dismounted and all 3 birds went to different corners of the top (the 2nd ♂ did not get a chance to mount anybody). Soon afterwards all birds flew down to the trees near the footbridge, where there has to be another roost hole.

3 May

800. Watching. 815. Several Garricks by the ♂Or turned out to be the presence of a ♀ub intruder.





1977

Walter D. Koenig

6

Melanerpes formicivorusPlaqueHastings Reservation4 May

2015. At dusk, all 3 birds were in a limb of the 2<sup>o</sup> tree, with the ♀ and ♂361 next to each other. After several minutes the ♂ hopped to the other side of the ♀, then the ♀ only ~~once~~ briefly mounted ♂361, then ♂361 briefly mounted the ♀, then all 3 flew to Plaque. Several minutes later, however, ♂22 returned to the limb at a knot, karrit-cutted several times, and disappeared into what must be a hole facing straight up! I have the awful feeling that it's their nest, and if so ~~it's~~ the young might be hatched for all we know. It will have to be examined first thing in the morning.

5 May

Not without some difficulty, I made it up to the "hole", cut it open, and was able to determine ① there are no eggs there ② the hole is rather small diametered and doesn't have much of a bottom to it ③ it wouldn't make much of a nest hole. The quest continues.

9 May

1750. Bird in hole by lab. Check tomorrow for sure.

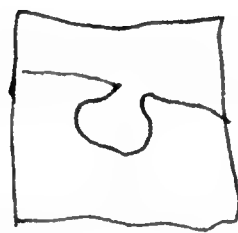
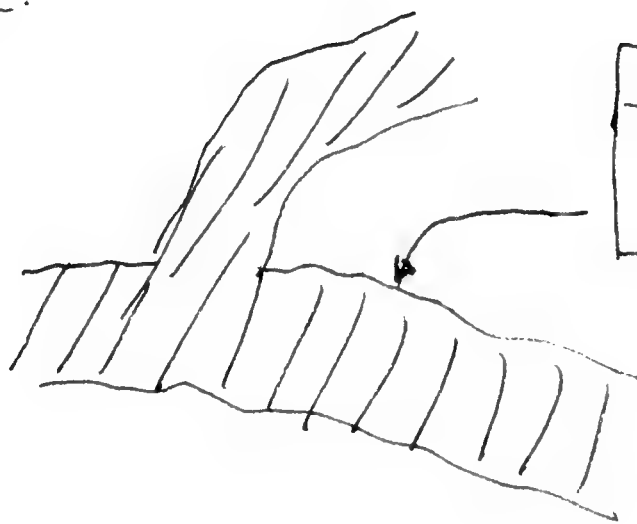
10 May

1330. Believe it or not, just as I was taking the ladder off the truck to get at the limb in the Blue Oak I heard a crash, looked up to see a limb hit the ground, and yes, fans, the very limb had just broken at the mouth of the hole and come down for good. I looked at the thing - no doubt it had soaked up too much weight in water for its poor rotten self. I don't think there were any eggs in it, however.

13 May

Checked out another hole here in the 2<sup>o</sup> tree this afternoon pointed out by Monica. It was in on the top side of a limb (see diagram on back) and ♂22 may have roosted in it last.

13 May  
            
Hole in 2<sup>nd</sup> tree:



hole only  
deep; bottom  
covered by  
soaked wood  
chips.

1977 Walter D. Koenig

7

Melanerpes formicivorus

Plaque

Hastings Reservation

(13 May)

night. So I went up and sure enough, the entire bottom of the cavity was soaking wet. Not a likely nest; in fact, it's amazing if someone's actually roosting here.

15 May

1200. Checked a hole in the 2<sup>o</sup> tree pointed out by Monica where the birds had been - in fact, a ♂ was in the hole when we came to look. I opened it, and there is nothing in it yet.

1930. Watching.

1940. ♂22 alone in 2<sup>o</sup> tree.

2000. ♀157 and ♂361 arrived simultaneously next to ♂22; ♀ gave impression of briefly trying to mount ♂22, but a quick shift of positions, possibly by ♂361, brought her off; then ♂22 flew off, ♀157 sat up a ways while ♂361 stayed in the same area.

2010. ♀157, ♂361 flew up canyon, ♂22 found next to pump-house. Going up, 2 birds were seen sitting up the canyon, then flushed back down. Returning, I then found all 3 together on a limb in the 2<sup>o</sup> tree. After several minutes, ♀157 went to the telephone pole and roosted; neither ♂ joined her, but I was unable to tell for sure where either of them did go. I think both roosted somewhere or another in the 2<sup>o</sup> tree.

19 May

Monica's last day; notes are all mine from here on.

I watched at dusk; at one point seeing ♂22 and ♀157 together atop Plaque; the ♀ mounted the ♂ for several seconds, the ♂ however only had a very brief time on the ♀ before ♂361 flew in and all sat reserved. In the end, ♂22 roosted in the telephone pole; I have no idea where the other 2 went.



1977 Walter D. Koenig

8

Melanerpes formicivorus

Plaque

Hastings Reservation

20 May

815. ♀157 atop Plaque w/ ♂361. ♂22 joined. All flycatching.  
♂361 to Sycamores by footbridge.

825. ♀ in Sycamore, ♂22 atop Plaque, ♂361 by upper barn.  
♀ to Plaque, drilling acorn. ♂22 atop Plaque; Garricked; ♂361 joined him.

835. ♂22, ♀157 atop 2<sup>o</sup> tree. ♀<sup>ub</sup> intruder here along with  
♂22 atop Plaque, NOT CHASED by ♂22; ♀ub flew to 2<sup>o</sup> tree.  
♀157 not seen.

844. ♀ub flew up Matrone Canyon

845. ♂22 atop Plaque; 846. ♀ landed at Plaque, ♀ub intruder  
also; ♀ub getting actively displaced by ♀157 only; meanwhile  
♂361 joined them. All 3 hawking once ♀ub gone.

850. ♂22, ♀157 atop 2<sup>o</sup> tree, ♂361 atop Plaque. ♂361 flew  
across to side of Watertank Hill. ♀ now chasing an intruder in  
Blue Oak up towards MacRoberts. ♂361, ♂22 there now.

855. ♂22 back in Plaque; other 2 up above labs (not together).

905. Bird flew down to main bridge or beyond (intruder?) ♀157  
atop Plaque. ♂361 atop 2<sup>o</sup> tree.

915. ♂361, ♀157 hawking from Sycamore up Matrone Canyon ~50m  
past upper barn. ♂22 atop 2<sup>o</sup> tree

920. ♂361, ♀157 still hawking up canyon. Leaving.

21 May

1035. ♀ atop Plaque; ♂22 low in 2<sup>o</sup> tree, ♂361 in trees by U. barn.

1040. ♂22 to Plaque, ♀ giving several Garricks now (♂22 not near  
her). 1044. Now ♀ flew down, displaced ♀ub intruder in Plaque.

1045. ♂22, ♀ in Plaque, ♂361 still by barn.

1055. ♀ still in Plaque, just displaced intruding ♀ again. ♂22 still in  
same tree, ♂361 still over by barn.





1977 Walter D. Koenig

9

Melanerpes formicivorus

Plaque

Hastings Reservation

(21 May)

1058. ♀ flew over by ♂ 361. Garricked ~~now~~ once.

1105. 2 birds still in trees by barn, ♂ 22 not seen, probably still in Plaque. ♀ Garricked again, ♂ 361 did not respond at all.

1115. ♀ flew over, joined ♂ 22 in Plaque, who's ~~♂~~ eating an acorn here; ♀ flew to top of Plaque with acorn bit. Eating it also. No hawking seen so far. ♂ 22 joined her on top of Plaque with large acorn piece.

1120. ♀ picked some of the acorn ♂ 22 had been eating after he moved aside when she approached. She walked off with it; he returned to same spot and drilled some more at it. No aggression at all.

1125. ♂ 22 atop Plaque, 1 bird still at upper barn. No overwhelming interest in holes here.

Just before dusk I walked by, finding the ♀ in the hole in the telephone pole and the 2 ♂♂ facing each other several inches apart on a limb in the 2<sup>o</sup> tree.

22 May

920. Nothing.

925. ♂ 22 and at least a 2<sup>nd</sup> bird on lower side of Watertank Hill above Bell's. In Live Oaks. ♀ 157 there. Sapsucking up here?

931. ♀ to Plaque. ♂ sub intruder here, below her by 4 inches. After several seconds the ♀ started to call: karrit-karrit-karrit-karrit-cut. Now ♂ 22 here, gave threat display; ♂ 361 arrived, ♂ sub displaced, flew to 2<sup>o</sup> tree. ♀ called, but did not chase or displace the intruder. All 3 atop Plaque now.

935. All 4 birds as before. ♀ now pulling at a catkin, eating it.

945. All gone; ♂ 22 in Sycamore by footbridge.

955. Can't find anyone.





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Melanerpes formicivorusPlagueHastings Reservation

(22 May)

1012. ♂22 in trees by Upper Barn.

1015. Now all 3 can be seen there.

1022. ♀ flew to Live Oaks by bunkhouse. Not clear what happened then; ♂22 left U. Barn area also; soon after a bird seen flying from Live Oaks by bunkhouse to Blue Oaks by lab.

1025. ♂361 still by Upper Barn; Garrick heard from Plague.23 May

Watched roosting only today. After some initial bally-hoo over by the upper barn, the birds eventually came to the 2° tree. I was unable to see any pre-roost mounting. The ♀ and ♂22 roosted together in the telephone pole (the ♀ entering the hole several minutes earlier than the ♂); soon after ♂22 joined the ♀, ♂361 went to roost, presumably somewhere in the 2° tree, but in any case not with the other 2 birds.

24 May

At 1110 I noticed a bird looking out of the hole in the telephone pole, so before watching I checked it. There was nothing inside; in fact the bottom has begun to run into a lower hole, so I attempted to patch it up for them.

1225. Watching. ♀ and ♂361 atop Sycamores by footbridge. ♀ a few inches above the ♂. 1231. ♂22 joined them; now from top to bottom: ♀, ♂361, ♂22, only inches apart.

1235. ♂361 still in sycamore, other 2 went into Live Oak above bunkhouse where they are surely sapsucking.

1242. All 3 atop Sycamore again (after I flushed them out of the Live Oak; ♂♂ facing each other, ♀ below them).

1245. ♂361 in sycamore, ♂22 atop Plague, ♀ lower in Plague.

1250. ♂361 to upper barn. All 3 there.

1255. Don't know what's up back there, but all are still



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Melanerpes formicivorus

Plaque

Hastings Reservation

(24 May)

more or less out of sight in the upper barn area.

1305. ♂361 still visible there; other 2 invisible but there.

25 May

1350. Nobody. Looking.

1400. ♂361 flushed from 2<sup>o</sup> tree.

1410. ♂361 by upper barn. Other 2 possibly seen on lower side of Watertank Hill. Not seen well.

1415. All birds out of sight.

1416. ♂22 atop Plaque now. Hawking.

1417. Flew down to Live Oaks above footbridge. Sapsuckling?

1430. ♂22 in 2<sup>o</sup> tree; flew off to Upper Barn ~~area~~

1438. Now ♂22, ♀157 in 2<sup>o</sup> tree; now ♂361 joined them from Watertank Hill area.

→ 1442. ♀ on branch in 2<sup>o</sup> tree; ♂361 sitting on another branch about 4 ft. away. ♂22 flew up, landing behind the ♀, then walked in front of her, crouching in an obvious solicitation posture. ♀ mounted him, just as she began fluttering on top ♂361 flew down and broke things up, actually apparently willfully terminating the act and possibly displacing ♂22. In any case, the net result was that ♂22 left the area leaving ♂361 several inches above the ♀ on the limb.

1445. ♀ sunbathing in 2<sup>o</sup> tree.

1450. First ♂22, then ♀ flew down low in Plaque.

At dusk I saw the opposite occurrence in mountings: <sup>first</sup> while the ♀ and ♂361 were alone atop Plaque. The ♀ mounted him well, then ♂361 tried to mount her but ~~he~~ slid off the side and never really got on. Just as he tried, however, ♂22 appeared out of nowhere (probably the 2<sup>o</sup> tree) and



Melanerpes formicivorusPlaqueHastings Reservation

(25 May)

gave a short "waka" and all 3 birds separated and went about their business. Again, several minutes later, ♂361 tried to mount the ♀, but this time ♂22 was there and again nothing came of it.

Something to think about in view of some of this is a "surveillance" tactic for ♂♂: a reason for the cohesiveness of groups at this time could in part be ♂♂ not letting the ♀ out of their sight, for fear that 1) she might be ready to copulate and they wouldn't be there and 2) someone (another ♂) would be there. There is an obvious competition going on here between the ♂♂. Too bad they don't seem to be up for Greeting -

By the way, noone ended up roosting in the telephone pole that I saw, but I think all 3 may have roosted in a heretofore undiscovered hole in the 20 tree.

26 May

915. ♀ and ♂361 atop Plaque; 3<sup>rd</sup> bird (♂22?) flew to trees by main bridge.

918. ♀ gleaned a Malacosoma larva, then thrashed it about as I saw up at L. Haystack yesterday. Ate the thing.

925. ♂361 to Upper Barn; ♀ in Plaque.

930. ♀ carned several times, then joined both ♂♂ <sup>top of</sup> in sycamore by foot bridge. ♀ flew down low (?). ♂♂ within inches of each other.

935. ♀ rejoining them; landed between them.

945. ♀ took off with others to side of Watertank Hill.

955. Can't see anybody anymore.

1000. ♂22 returned to sycamore.

1005. ♂22 inside Plaque. Leaving.





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Melanerpes formicivorusPlaqueHastings Reservation30 May

After watching the ♀ roost in the other strange hole in the 2<sup>o</sup> tree last night and seeing a bird at the hole today around noon, I opened the thing, finding nothing.

2 June1200. Counted stores: 694.7 June

2000. Didn't see anybody in passing by and looking around here.

8 June

810. Watching.

825. All 3 birds here; <sup>the</sup> ♀ just flew down to the lab area to displace a ♀ intruder.

910. These birds are staying pretty well out of sight (sap-sucking perhaps?) If they do have their nest finally, it certainly isn't in the 2<sup>o</sup> tree or telephone pole. They still should nest, though, so I'll have to check here fairly regularly.

11 June

1355-1450. Sat around and walked around here, eventually seeing all 3 birds, but gaining no significant lead as to any nest possibilities.

At dusk, I saw the ♀ and ♂ BLW for a short time. 2 birds, at least apparently roosted in the telephone pole, but I don't know who they were. I saw nobody else roost elsewhere.

14 June

1500-1620. Found ♂ Or immediately hawking in the main area. He flew down to the area by the Pump house, to where I duly went and found nothing in looking around. I proceeded after sitting for 15 min. longer to search the entire canyon area with no success. Now I'm back-finally! Some calls from Plaque! Bird flew between Barn/Pump house

1630. Found ♂ 22 - flushed him from obvious sap tree next to upper barn. I'm not satisfied, but that will have to do for now. Where's the ♀ and ♂ 36?



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Melanerpes formicivorus

Plaque

Hastings Reservation

(14 June)

At dusk, a bird was in the telephone pole hole (don't know who) but noone joined it and I saw nobody else anywhere at all.

16 June

1135-1225. Watched. Saw ♂22 for awhile, sapsucking in the Live Oaks by the bunkhouse, hawking from Plaque, and finally flying to the Live Oak by the Pump house again, where ♂361 flew out and up past the upper barn. Didn't see the ♀ at all again. No indication of a nest at all, I dare say.

22 June

1000. ♂22 and ♀157 in Plaque, flew to Barn area. Could be something going on yet.

23 June

2000. ♂22 in top of Plaque, sitting; ♂361 in 2<sup>o</sup> tree.

2020. All 3 atop Plaque now. ♂361 then flew to Upper Barn area; ♂22 disappeared. I'm leaving, but I better watch here seriously soon.

26 June

855-930. Sat up on the hill by Bell's watching for something interesting, which I never saw. ♂ or ♀22 was in the 2<sup>o</sup> tree for awhile and some sapsucking was going on by the Pump house again, but the little activity that there is here certainly does not have a breeding flavor to it.

✓ 4 July

930. Counted stores: 510.

13 July

930. ♂22 atop Plaque. 943. ♀157 atop 2<sup>o</sup> tree.

22 July

♀157 seen atop the 2<sup>o</sup> tree at one time or another in passing.

23 July

1145. ♂ or ♀ #361 atop Plaque.

29 July

1115. Both ♀157 and ♂22 along with a 3<sup>rd</sup> bird seen here.

9 August

♀157 atop 2<sup>o</sup> tree as I walked by.

12 August

♂22 atop 2<sup>o</sup> tree as I walked by.

14 August

♂22 seen drinking from the large spout by the road in front of the Pump house.

19 August

♂22 seen in the area.



Melanerpes formicivorusPlaqueHastings Reservation20 August

1000. ♀ub seen atop 20 tree in passing - clearly an intruder.

21 August

♀157 seen in a low storage limb in Plaque with 1-2 others.

28 August

1100. Watching. 1108. ♂Or #22 flew up into Plaque. ♀RR #157 hawking from 20 tree.

1115. ♂22 back in row of trees by upper barn.

1125. There are 1 or more birds up on the side of Red hill down from the path to Chongo. 1 is ♀157. There is a 2<sup>nd</sup> also. They are clearly here for acorns - several of the Blue Oaks are loaded with green ones. ♂22 here too, now.

1137. ♀157 just flew off with a good-sized acorn. No sure sign of ♂361.

1145. Good - ♂DBLW #361 atop Plaque. Now going to count stores:

Total stores: 215 (all old and in Plaque).15 SeptemberThinking that I hadn't counted stores, I checked around and found only 76 (still all old and in Plaque).17 September

♂22 seen atop Plaque.

19 September

♀157 seen low in Plaque.

22 September

♂DBLW #361 seen atop Plaque.

3 October

Saw ♀157 in passing this morning.

7 October1735. Banded intruder atop Plaque: ♂Or / DG-Or - maybe #373 from Buckeye! Also ♀Wh-Blk/Or - #372 from Buckeye! ~~#372~~ from #y-Bton?

Dec. Both of Buckeye me thinks

1742. Now ♂361 over in 20 tree.

16 October

1250. Seen here were ♀157 and 2 other birds without WS on their right wings - very possibly ♂22 has lost his.

29 October

♀157 seen flying by in passing.

11 November

1615. ♂361 atop Plaque.

1625. There is an unbanded ♀ sitting complacently over in





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Melanerpes formicivorusPlaqueHastings Reservation.

(11 November)

the row of trees by the upper barn!

1628. The ub ♀ (I presume) just took off and headed ~1/3 way to Buckeye group. Maybe she doesn't live here after all (whew!).

1638. Now a bird just flew up from the canyon somewhere or other and headed straight off over toward MacRoberts. Bizarre indeed.

Meanwhile ♂ <sup>361</sup>~~322~~ is still atop Plaque.

1645. ♀ 157 now low in Plaque. Also a ♂ (Now 15 on 1w) up in Blue Oak on hill above lbrs.

1700. Holy cow! A ♀ sitting in the line of trees by the upper barn appears to be ♀ <sup>Wm-Dk/Or</sup> #342 from Buckeye!12 November1445. ♂ 361 atop ~~the~~ Plaque.13 November

1545. ♂ 361 here. ♀ 157 working stores in Plaque.

1600. No sign of anyone else. ♂ 22 (sigh) is gone.

1615. Meanwhile, there are at least 5 birds (all unmarked) quietly sitting/pecking away in the area just beyond the upper barn. Presumably these <sup>are</sup> Buckeye birds again.

1615. A chase - there may be 2 groups involved in all this. All still very quiet, however. Still no banded birds.

1620. 1 bird drank at the trough by the upper barn. Maybe that's part of what they're after?

1630. Another bird (♂) went down and drank from the trough.

Purge: ♂ 22. Last seen 17 September, gone by 16 October;  
→ Disappeared about 30 September ± 2 weeks.12 December♀ 157 atop 2<sup>o</sup> tree. Later, ♂ 361 was seen atop Plaque.Counted stores: Plaque: 1479  
2<sup>nd</sup> tree: 0  
Tel pole: 30 } 1509

✓





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Melanerpes formicivorus

Plaque

Hastings Reservation

20 December

♀157 in a low limb in Plaque early this afternoon.

24 December

Both ♀157 and ♂361 seen sitting atop Plaque.



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Melanerpes formicivorusMacRobertsHastings Reservation17 January

1045. Watching. One bird in the vicinity.

1120. ♂ finally came and sat in the granary for several minutes.

I never got much of a look at his legs, but I think I saw a vague hint of Blue on the left; I suspect he was ♂323.

I was able to pick out what looked like 1 intact acorn in the storage tree.25 January

1645. Watching. Nobody in sight.

1656. ♂ub in tree next to granary sapsucking. Several barrit-cuts brought nobody else to the area.

1659. ♂ now sitting atop granary.

5 February

1030. Watching.

1040. An ubo<sup>♂</sup> flew into a tree just across the fence from me, sat for a minute, then took off for the base of School Hill.1115. A [another] ubo<sup>♂</sup> sat in the tree just north of the granary and preened for 5 minutes. He's still in the vicinity.1125. A ♀ came by here and was in the trees on either side of the granary sapsucking for a few minutes; she was ♀M/Red -  
♀ Red-Yellow/Red - ; no doubt ♀314 once again(!)

1130. Leaving.

17 February

1015. Watching.

1035. Going to get the captive.

1100. Back again; captive up in granary.

1140. There is now an unbanded ♂ checking Junior out.

The bird is in the granary above the cage investigating some empty storage holes.

1200. The ♂ still poking around. Though the group, as it were, is clearly defunct, birds are still obviously interested in the place.



Melanerpes formicivorusMacRobertsHastings Reservation

(17 February) My next move should be to try and catch this ♂ to see if he's hanging around here regularly.

1230. Set up some netting around the captive, but was unable to catch the ♂, who remained in the tree pretty much continuously until I left at 1400 for good.

In an attempt to draw some conclusions concerning the fate of this group, I have summarize all sightings since May, when I still knew what was going on:

May. ♂ub, ♀ub, ♂162 (end of first yr) seen repeatedly.

4 June. ♀ub, ♂162 seen only. ♂ub suspected to be gone.

July. ♀ub, ♂162 still only 2 present.

5 August. ♂ub now here, along with ♀ub and ♂162.

[Surely not the same bird!]

11 September. Many birds here (2♂♂, 2♀♀). Some chasing. ♂162 not seen.

15 September. Still several strange birds here. One ♀ub caught and banded (♀318), but never seen again.

28 September. Nobody seemed to be here at all.

10 October. Very few stored acorns; a ♂ub and ♀ub here.

Several more watches in October and early November yield a ♂ub and ♀ub regularly; also, a 2<sup>nd</sup> ♂ub, clearly subordinate to the first, was present occasionally.

16 November. ♂ub caught and banded (♂323). ♀ub here.

December. ♂323 here regularly; 2<sup>nd</sup> ♂(ub) occasionally.

17 January. ♂323 here maybe. Stores gone.

25 January. ♂323 gone; ♂ub seen here.

17 February. ♂ub here alone.





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Melanerpes formicivorusMac RobertsHastings Reservation

(17 February)

Conclusions: I surmise the chronology of this group to be as follows:

1) ♂<sub>ub</sub> (♂510), ♀<sub>ub</sub> (511), and their single remaining offspring from 1975 (♂162) remained intact to <sup>31</sup>~~28~~ May 1976.

2) ♂510 disappeared about 31 May 1976, leaving ♀511 and ♂162.

3) About the beginning of August, a ♂[♂] began considering moving in. ♀<sup>511</sup>~~510~~ and ♂162 still here.

4) ♂162 disappeared [very probably moved] near the end of August, as previously designated (see 23 November)

5) By 11 September, a minor revolution was taking place here, vying for slots. ~~511~~ ♀511 may or may not have been here, of course, but it is not unreasonable to presume that she was. Several ♂♂ were here, as well as strange ♀♀ (one of whom was caught and banded), who presumably were attracted to the area but were not directly involved, as ~~511~~ (given that ♀511 remained, as I must assume).

6) By 10 October, one adult ♂ (unbanded) had settled here along with ♀511. I assume that the 2<sup>nd</sup> <sub>ub</sub> ♂ seen several times was a 1<sup>st</sup> year bird from the adult ♂'s home group who tagged along, as I have seen frequently happen, but did not move permanently. This adult ♂ will be ♂610. Moved to Mac Roberts 26 September 1976.

7) These 2 birds, ♀511 and ♂610, remained through November, attempting to store. ♂610 was caught and banded on 16 November to become ♂323.



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Melanerpes formicivorusMacRobertsHastings Reservation

(17 February)

8) During December, ♂323 (plus his 1<sup>st</sup>-yr. friend) were still in evidence, though their stores were essentially zero. ♀511 was not seen and may have deserted already, but will be assumed to still be present as long as ♂323 held out.

See below -  
moved to  
Robertson  
Canyon

9) ♂323 and ♀511 abandoned their territory, presumably due to lack of stores, on about 17 January 1977,  $\pm$  1 week.

10) Since then, birds here have been wanderers (e.g. ♀314) or potential residents (such as the ♂ub there today). The territory, however, is presently uninhabited.

7 March

No birds, no stores.

18 March

♂323 positively identified ~~at~~ up Robertson Creek; see general Melanerpes notes. • 2<sup>nd</sup> bird there also.

The same individual was almost certainly seen there on 2 February.

2 April

1620. No birdy seems to be up here, as expected.

15 April

940. Several birds here: 1 ub ♂ and a ♀ub more or less together in the [empty] granary; 1-2 other ♀♀ub in the vicinity. At least one landed in the granary and was displaced by the ♀ consorting with the ♂. Both these birds drummed in the tree, the ♀ several times. The ♂ hawked numerous times.

1000. Everyone seems to have split entirely. In any case, several ♂ birds are obviously interested in the area, and no doubt a couple will move in soon.



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Melanerpes formicivorusMacRobertsHastings Reservation

(15 April)

1005. An ub ♀ Garricked several times nearby, then flew to the granary, drummed once, worked several times, and generally acted pretty uppity. (an work grating into a waka). No one else did anything about it. (there isn't any one else here).

1010. Another bout much like earlier: ♀ Garricks, finally flies to granary. ♂ ub flies to granary. Then the ♀ begins waka ing, moves up tree to displace a 2<sup>nd</sup> ♀ who had landed near the ♂. She chases the ♀ off, ♂ hawks and gets an insect.

25 April

1045. Nobody here; even checked the '75 nest area.

12 May

1345. Nobody here.

26 May

1315. " "

4 July

940. " ". Place looks pretty thoroughly deserted.

28 August

1930. No sign of acorns or birds here yet.

21 September

1100. Just as I looked at one of the Blue Oaks up here and saw some acorns in the tree and said to myself "any year there are acorns up here there ought to be birds living here" an AW flushed from the granary. Several minutes later both a ♂ and ♀ landed briefly and in quick succession atop the granary. Looks as though a group may actually be reestablished here.

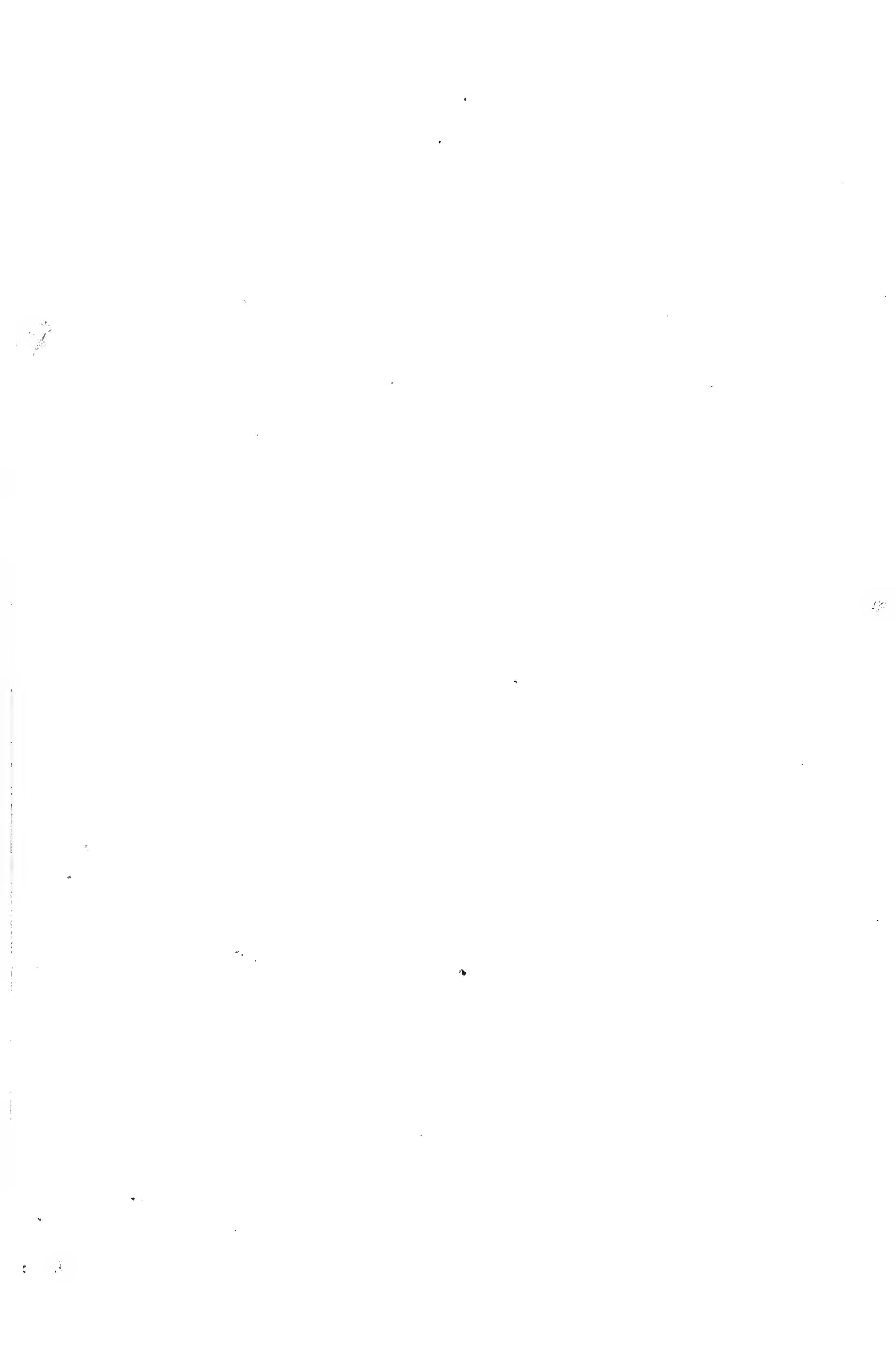
8 October

1620. A ♀ landed in the granary here as I walked up. Several acorns can be seen stored here.

1623. ♂ ub landed here briefly.

Counted 24 acorns here. Not a lot, but already more than the old group managed to get last year. Clearly there is a group here!

Birds have clearly been interested in this area as far back





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Melanerpes formicivorusMacRobertsHastings Reservation

(8 October) as 15 April, but the lack of life here throughout the summer leads me to add the 2 new birds as having moved here between 28 August, when I had yet to see anyone, and 21 Sept: both ♂615 and ♀616 Founded as adults about 9 September 1977.

16 October 1500. Net up here. N.C. by dark.

6 November 1 Bird flushed from area this afternoon. Still stores here.

12 November 900. Net up.

1300. Caught one - adult ♀, now #431!

1715. Net down.

26 November 1050. Watching from hide. There are a fair amount of acorns here.

1053. 3(?) birds flew by, inc. ? m/DB-wh/wh #431.

1116. ♂ub. The birds are really uppity today.

1123. ♂ub still sitting in the area.

1210. The ub ♂ has been here at least 2 more times. The ♀ is being difficult.

1220. Leaving - only got the early look at the banded bird in a way which didn't convince me that she lives here, though she probably does -

27 November 1130. Here to try for the ♀ again.

1240. 3 birds in a brief, quick chase in the left tree - one was ♀431.

I guess this proves that she lives here, though I still haven't had a good look at her in the granary.

Birds have a goodly number of stores here (several hundred at least).

12 December 1500. Counted stores: 422. Not too bad, but still a fair number of empty holes.

20 December Another loss to the storm: the big hanging limb here (with 2235 stored





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Melanerpes formicivorusMacRobertsHastings Reservation

(20 December) acorns and at least 300 holes) has fallen for good.

The limb was immediately appropriated and taken down to Pump for use as a storage limb there.

30 December

Walked up here - cued by my inability to see the granary here from Arnold Road Flat yesterday - and discovered that indeed the entire tree has fallen! This is interesting indeed. Quite a few stores could be seen, many now right on the ground but some (at least 100 or more) near the former top, ~~at~~ 10 feet off the ground where the birds could presumably still use them. No birds were seen, as it happens, but my guess is that they will hang around up to the time when they deplete the acorns here, probably in a month or so. At that point, this territory will probably be abandoned for good.



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1

Melanerpes formicivorus

y

Hastings Reservation14 January

1010. 4 birds seen flushing from lower Barn area.

18 January1620. ♂<sup>yel</sup>/Drk #322 seen. Birds flying back and forth between the barn and the canyon alongside the old county road up by the Davis'.15 February

1515. Watching.

1530. ① ♀<sup>or</sup>/light. #16 in locusts. ② ♂<sup>ub</sup> in same area working stores.1545. ③ ♂<sup>M</sup><sub>wh/Blk-or</sub> #322.

1600. Leaving.

5 March1545. ① ♀<sup>or</sup>/ #16 here.1555. ② ♂<sup>yellow</sup>/ #322. ③ ♂<sup>ub</sup> in the far locust with another bird.7 March

This group does still have stores in the locust trees at the barn.

2 April1655. ① ♀<sup>or</sup>/wh-LP #16 here; also ② ♂<sup>M</sup><sub>yel</sub> #322 and a 3<sup>rd</sup>

bird.

4 April

1000. 4 birds (!) definitely all sitting in the perch tree up on the knoll. Either ♂261 lives or there are 2 ub ♂♂ here after all or I'm either more confused than I'd thought.

1010. ① ♀16 now by lower Barn.

1017. ② ♂<sup>ub</sup>. Now ③ ♂<sup>DB-LP/DB</sup> #261 over on other side of barn, then flew to front where the others are. He is still here.20 April

There are acorns remaining here in the Black Locust.

600. Finally ambushed the birds here, getting 3/4 - all except ♂261, who I saw later on (see beyond for comments on the roosting behavior of these birds)

Once again, in a virtually identical fashion to the catching of Plague last week, by the time I stepped back



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Melanerpes formicivorus

Y Hastings Reservation  
(20 April) out of the labs at 715 to release the birds, loud Garricks and considerable noise was coming from the lower barn. Again, within 2 hours of dawn, 6-8 birds were already here making the most of the apparent vacancy. This was all in spite of there still being one bird - ♂261, fighting everybody off. I let the 3 birds go immediately and returned 15 minutes later, at 745, to watch. Already the revolution had taken a predictable turn: considerable chasing, Garricking, and some real fights were taking place, but the residents were in clear control of the core (= Barn) area, with most of the intruders making noise from various "peripheral" locations. Several unbanded birds were seen, and possibly 1 or 2 banded ones, but I was unable to pin them down conclusively.

900. Still a fair amount of calling - several birds still at the lower Barn, while a 2<sup>nd</sup> set seem to be up on Blomquist Knoll.

910. ♀16 ♂♂261 and 322 in locusts at barn defending them from 1-2 <sup>(at least 1, ub ♀)</sup> intruders; going to see about the knoll.

920. Over at the knoll are 2-3 banded birds sap-sucking together in a Blue Oak. ① ♂ <sup>LG-DG/LG-Yel</sup> #298 ② ♂ <sup>Red/Wht</sup> #88. ③ ♂ <sup>M/LP</sup> #296. Looks like the "1500-School Hill" coalition. ④ ♀ <sup>yes</sup> WhtRW, ~~probably~~ #326. There is some fighting here also. These birds seem to have temporarily taken over the knoll while the residents are busy at the barn. ⑤ ♂ <sup>Or/Yel-DG</sup> #297 (the 3<sup>rd</sup> School Hill 1<sup>st</sup>-yr. bird).

940. These 2 sets of birds seem to be the main





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Melanerpes formicivorusYHastings Reservation

(20 April)

~~one~~ foci of activity, while there are probably 4-6 other independent intruders either in one or the other of the core areas (and thereby being chased) or in one of a couple of peripheral trees, where he/she is sitting and Garricking rather frequently.

945. There is yet to be any "interchange" between the 2 sets of birds here.

For the record, this area had been completely at ease until this morning.

Later in the afternoon I returned briefly and noted the barn area quiet and almost completely dominated by 4 birds; several 1500-types (including possibly ♂195) were still up on the knoll where there was still some chasing and excess activity.

As for roosting here: when I first watched at dusk here last week from the knoll, I was quite impressed by the fact that all 4 birds gathered rather quietly in the locusts and then right as it got dark all split virtually simultaneously in as tight a flock as I've seen for the roost area across the road. This week, when I watched the area, again these birds arrived almost precisely with each other - spaced inches and fractions of a second apart. Last night they all went inside the hole in the big Valley Oak, then 2 came out, mounted briefly, then returned to the hole, stayed in/near it for several minutes, followed by a virtual instantaneous exodus of all 4 birds for the nearby hole in the Blue Oak, where they all (more casually) went in and where I caught them this morning.

Last year, this "tight" flocking behavior was seen during the days at Black Oak and Arnold 3 in the Spring.



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Melanerpes formicivorus

Y

Hastings Reservation

21 April

830. ♂ RRL #322 in locusts; no chasing to speak of by the barn, but there are still 4-5 other birds on the knoll. Also in the barn area now: ② ♀ OrLW #16, ③ ♂ Red/M #364, ④ ♂ DB-LP/DB #261.

900. On the knoll are the 1500-School Hill birds again - seen were ♂296, and ♂298.

Monica watching here; as she will continue to do for just about every day until we find a nest here or are interrupted by Plaque's nest. See her notes for daily reports.

23 April

1000. ♂297 (School Hill(?)) and ♀326 and 2-3 others still up on the knoll here; possibly beginning to be chased [by the residents].

Watched here this evening. At 1905 3 of the birds in the small Blue Oak sap tree by the knoll (no doubt the 1500-S. Hill complex) headed off together toward the lower end of School Hill (about at the old unused tree) followed several minutes later by a 4th bird. The 4 birds, meanwhile, were apparently in the Valley Oak by the fence just over on Blomquist's the whole time, for Monica saw 3 of them depart simultaneously about 1915 and I saw all 4 arrive together in the Sycamore, where they no doubt roosted.

30 April

This morning several of the wing-streamered Y birds were in the '75 nest tree, while 3-4 others (presumably the "1500" birds) were further out on the knoll in the perch tree. There was a lot of calling here yesterday (when Monica wasn't able to watch) and I suspect that it all relates to the gradual ~~note~~ recovery of the knoll by the Y birds, which has been under the control of these others since I trapped them on the ~~20th~~ 20th. They were showing



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Melanerpes formicivorusYHastings Reservation

(30 April) a lot of interest in the '75 nest hole even in the few minutes I was able to watch them, so perhaps they'll be good to us all and nest there.

5 May

2005. Birds roosting in the sycamore (the weird hole) and the Blue Oak in the hole I cut open last year (which wouldn't be a bad place to nest at all).

7 May

1700. Bird(s) in hole in Blue Oak in knoll again (not for roosting or nesting necessarily - it's raining and cold out.)

9 May

1100. ♀ WNRW #326 and 2 ♂♂ seen on the far edge of the knoll. By now, 4 birds have recovered all but this tall perch tree and the sap tree from these birds (presumably ♀326 and the School Hill 1<sup>st</sup>-year birds).

13 May

Birds using both holes in the big sycamore at dusk.

19 May

Monica's last day.

20 May

930. Flushed 1-2 birds up Canyon (School Hill side).

1120. Checked both holes up the canyon: the one in the small tree by opening my cut and the other by carefully probing with my widget. Nothing in either.

1430. Watching. 3-4 birds in tree up Gulch along Co. road in dead limb. Could definitely be a hole there. (≈50m up from main granary). ♂364, ♀16, and ♂261 there for sure.

No intruders on knoll or elsewhere.

1455. At least those 3 still there. ♂322 also can be seen.

3 together within a foot, ~~391~~ ~~391~~

1515. ♀ here for sure; others not clear. Went to check limb; the backside ~~and~~ does have several holes, which may be useable. No birds in any of them, though.





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Melanerpes formicivorus

Y

Hastings Reservation

21 May

905.  $\geq 3$  birds in locusts behind L. Barn.

915. Birds came to locusts in front of barn from Canyon. Noone in holes up Canyon, however (e.g. 4<sup>th</sup> bird not there).

♂ 322 in locusts preening.

925. 2 birds still in locusts. ♂ 364 here. ♂ 261 seen, probing for acorns, now drilling at it. ♀ here also. ♀ lowest in tree, ♂ 364 highest, other 2 in between. (All 4 here).

930. Maybe an intruder. Birds going now to knoll.

935.  $\geq 3$  birds in Blue Oak on knoll (not one with hole: ♀ here and ♂ 322, ♂ 364); ♂ 261 in Valley Oak along fence line.

940. ♀ 16 to '75 nest hole, then sitting on top of the limb; ♂ 322 in same tree now.

945.  $\geq 3$  birds in Blue Oak with hole (not '75 nest tree). ♀ 22 here

950. Birds all in big perch tree now.

955. At least ♀, ♂ 322, ♂ 261 here.

1000. Birds flew off, out further on knoll (no intruders here anymore).

1010. Birds found -  $\geq 2$  flushed from ~~'75~~ ~~tree~~ VO storage tree. Flew to the dead limb in the tree with holes up along Co. road; ♀ sitting on back side (where holes are, but not at any in particular), ♂ 322 here also.

1015. Birds flushed going up Canyon - walked up, flushing 3 birds from the big Valley Oak, near the ~~nest~~ hole. But noone in hole. Birds are obviously very interested in holes.

1020. Birds heard back in locusts as I'm returning.

At dusk, all 4 birds roosted together in the down-hanging limb in the sycamore.





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Melanerpes formicivorus

Y

Hastings Reservation

24 May

1430. Checked holes on S side; found a Flicker in the large Valley Oak hole up the Canyon. Eventually found 2+ birds on the knoll. Some interest in/around the '75 nest tree.

1445. Birds now by the barn and in the sycamore across the road. All 4 eventually seen flying off over the road and disappearing. All ~~1500~~ 1500 I found at least 3 of them in the hole in the large Valley Oak up the canyon where the flicker had been! At that point I left. Clearly interest here is high but as yet rather undirected.

At dusk all 4 were sitting very close together in the Valley Oak next to the roost sycamore; I think most of them roosted there, but I'm fairly sure I heard one go up the canyon....!

25 May

935. Had seen one bird in perch tree up canyon; all 4 now have flown to the knoll. Birds are cohesive - not in a tight pack, but still as a group, following one another all to the same general area.

944. Birds had been by L. Barn, 3 flew to Canyon (♂ 322 still on knoll).

Birds later seen back by the barn; 1 bird also seen flying up the canyon again.

Later in the day I did go up the <sup>big</sup> tree and check the hole in the canyon area, but there is nothing in it as yet.

26 May

1015. At least 1 bird in vicinity of trees in the canyon but nobody in the holes.

1020. ♀ 16 plus a ♂ landed at the barn. ♂ 261 seen picking out what must have been an acorn bit from the locust behind



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Melanerpes formicivorus

4

Hastings Reservation

(26 May)

the barn and is eating it. Group does have some stores. ♂364 seen eating some acorn bits also.

1030. Several birds still by the barn.

1034. ♀ and one ♂ flew to tall pines by Betty's lab; sitting there.

1038. ♀ flew off toward canyon. I did not see anyone there when I went to check, however.

At dusk, all 4 birds were somewhere on the side of School Hill, and all came zooming down in a very tight pack about 2030 to the small Valley Oak next to the Sycamore roost tree. All then zipped off, again virtually simultaneously, to the hanging limb in the sycamore. 3 stayed, 1 returned to the Valley Oak, called several times, then joined the others. As this 4th bird went in one bird gave a relatively subdued Garrick (Urk?), heard along with the usual trtrtr calls.

2 June

1300. I am able to see several intact acorns still stored in the front locusts; these birds do have (some) stores remaining.

Checking the holes, a bird was in the hole in the small Valley Oak up the canyon - it will have to be checked today.

At dusk, no one roosted in the hole up the canyon.

3 June

900. Checked the hole, where there were no adults inside but there were 2 eggs! I proceeded to get my tape recorder and sat here pretty constantly the entire rest of today and most of 4 June as well. I did check the nest again about 1800 (still 2 eggs).

Following are my transcribed notes for 3 June:

~~1000~~ Birds are as follows: ♀, ♂261 = ♂NWS, ♂RR = ♂322, ♂Y = ♂364.

[go to P. 11]



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Melanerpes formicivorus

Y Nest Record

Hastings Reservation

2 June 1300.

Bird first seen in hole. <sup>Noone roosted here at dusk.</sup>

3 June 900

Hole opened (noone in it); 2 eggs (cold)

①  $24.6 \times 21.1$

②  $23.5 \times 20.5$

1800.

Still 2 eggs

4 June 1000

3 eggs (still noone incubating) (cold)

③  $24.9 \times 21.2$

Noone roosted in hole at dusk.

5 June 850

Bird in hole (♀)

920

Noone in hole. Still 3 eggs, warmish.

1330.

Bird in hole.

1900.

♀ in hole: 4 eggs: ④  $24.8 \times 20.8$

2100

Noone roosted here again tonight.

6 June 800

Noone in hole.

1600.

♂ 261 in hole: still 4 eggs, warm.

2100

Noone roosted here again tonight.

7 June 900

♂ in hole

1845

Bird in hole.

2030

♂ in hole, remained here to roost.

8 June 1710

Bird in hole.

2045

Bird in hole at dusk.

15 June 1130

Bird in hole. All 4 eggs warm, opaque.

16 June 1130

♀ 16 in hole. All 4 eggs warm. No sign of

pipping as yet.

1900

♀ 16 in hole. All 4 eggs pipping (#3 with small hole, others dented & broken only)

Weak cheeps heard from eggs.

17 June 950

All 4 hatched, measured.

17 June

Measurements taken on 4 babies

Time: Daylight Savings Time

- ① Weight: Cerasus (30g Pesola to day ; subsequently 100gm Pesola)
- ② Wing Chord
- ③ Culmen
- ④ Tarsus (both to <sup>estimated</sup> ~~imaginary~~ joint and to bend, see below)
- ⑤ ~~Hallux~~ (ventral surface) 3<sup>rd</sup> toe → ~~Hallux~~ (hind)
- ⑥ length of 6<sup>th</sup> primary
- ⑦ length of inner (central) rectrices



Weight 2/3/5  
4/6/7  
(4a)

wing Chord / Culmen / 3<sup>rd</sup> toe (hind)  
Weight Tarsus (to bend) / 6<sup>th</sup> 1<sup>o</sup> / Inner rectrices

real  
tarsal  
measure  
(to est. joint)

alternative  
(to the actual  
90° bend at  
tibi-tarsal / tarso-metatarsal  
joint)



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Melanerpes formicivorus

Y Nest Record (cont)

Hastings Reservation

	(414) ① Wh-Mauve	(415) ② DB-LP	(416) ③ L&R rump Shoulder Mid back	(417) ④ Wh-Mauve-DB
17 June 950	5.3 7/5.5/5.1 8.2(11.0)/ 9/7.3/5.9	4.9 7/5.7/4.9 7.5(10.2) 10/7.9/6.1	5.4 7/5.8/4.9 7.9(10.1) 9/7.1/6.8	5.7 7.5/5.9/5.5 8.5(10.9) 9/7.6/7.2
19 June 1000	8.9 10.2(12.7) 11/8.7/9.1	12.7 12.1(13.9) 12/10.0/9.3	9.1 11.4(13.3) 10/8.2/7.7	11.7 10.8(14.2) 11/9.8/9.4
21 June 1000	16.8 13.3(17.1) 13.5/10.5/11.4	21.2 14.7(18.0) 15/11.2/12.5	10.1 12.9(15.4) 11.5/9.9/10.0	18.6 13.5(17.0) 15/11.9/12.8
23 June 1000	23.2 16.4/ 17/12.2/14.5	32.4 18.4 19/13.4/16.5	18.9 15.2/ 14/12.1/13.1	26.1 17.1/ 19/13.3/14.9
25 June 950	31.8 19.5 22/14.2/16.0	40.6 22.0 25/15.2/18.7	25.1 18.8 17/14.0/14.5	36.7 21.1 24/14.9/16.9
27 June 905	39.0 21.7/2/3 28.5/15.5/18.1	48.5 23.2/2/3 32.5/16.5/20.5	29.7 21.7 21/15.3/17.7	43.5 22.6/2/3 31/16.5/19.1
29 June 1000	47.3 22.2/5/5 37/17.3/18.9	56.3 24.3/8/8 45/18.1/22.8	35.2 22.5/-13 26/17.2/19.7	53.5 23.9/6/6 40/18.3/19.2
1 July 950	51.2 22.6/12/10 49/17.8/20.9	62.5 25.3/16/14 54/18.9/22.8	39.9 24.0/4/7 32/18.3/20.8	56.5 24.1/14/11 51/18.7/22.5
3 July 1000	53.9 22.9/20/16 54/18.2/20.9	65.4 25.9/26/20 61/19.5/23.3	43.4 24.2/10/11 36/18.2/21.0	60.4 24.5/23/19 58/19.4/21.4
5 July 1000	51.7 22.9/28/22 61/19.1/21	63.8 26.1/35/27 72/19.9/23.3	37.6 24.3/14/14 gone no trace	59.9 24.6/32/24 68/20.2/22.3
7 July 1000	56.3 23.3/36/26 70/19.8/21	66.3 25.4/44/32 83/20.5/23.7		63.5 24.3/41/30 79/21.4/22.1
9 July 950	57.0 23.2/45/30 79/20/21.5	68.1 25.2/55/37 88/21.5/23.8		66.3 24.1/51/36 89/21.5/21.9
11 July 1000	58.9 23.2/54/36 88/20.5/21.7	70.4 25.8/62/41 100/21.8/23.7		68.1 24.6/63/41 99/21.9/22.1
13 July 1000	59.5 23.1/62/42 95/21.5/22.0	68.8 25.5/72/48 111/22.8/24.0		67.5 24.5/69/46 106/22.2/23.2
15 July 1000	60.4 23.2/71/48	69.6 24.8/80/53		65.1 24.1/79/52



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Melanerpes formicivorus

y

Hastings Reservation

(3 June)

930. No one seen. 1 bird in mid-knoll. is ♂y. Several others in far side of barn; one chased Hairy Wipker. ♀ behind barn at 935. Now ♀ is chasing an intruder; 936. ♀ flew off to the Pump or beyond -!

937. No one. ♂y still in mid-knoll, as before. 2 birds in VO by fence flew to locusts. ♀ behind barn at 945. She's sitting; don't see a ♂. Greeting ♂RR and 2<sup>nd</sup> ♂ on trunk above her. 2<sup>nd</sup> ♂ is ♂261. 949 ♀ Moving acorn bit; ♂♂ ignore her. 950. ♀ still behind barn; no ♂♂ in immediate vicinity. 1000 ♂ to her left. 1001. ♀ by herself. <sup>1003</sup> Now ♂RR above her. All 3 ♂♂ near her - ♂261 below her, ♂RR on another branch, ♂y further away.

1005. ♀ Eating acorn. 1006 ♂RR 1 ft below her. ♂RR, ♂y still in tree. ~~♂261, ♂RR, ♂y~~ ~~went across road briefly, now back~~. 3<sup>rd</sup> ♂ (♂261) joined them from Sycamores across road. All greeted each other nicely. 1015. No one making effort to follow ♀. <sup>1017</sup> ♂261 to ♀ sycamore. ~~♂RR~~ ♂y to VO by fence line - sapsucking? Other 2 ♂♂ to knoll. 1026. ♀ in mid-knoll. 1 ♂ nearby. ~~♂~~ 1033. She can't be seen but prob. still there. 1035. 6 birds by barn. ♂RR behind barn; 21 bird in VO by fence. ♀ in far locust also at 1037. 2<sup>nd</sup> ♂ joined them. 1050. ♀ still there. 1051 ♀ to VO by fence. ♂RR and her both hawking from fenceposts past the VO. She landed on the ground 1 time. ♂261 there now, too. 1105. ♀ to the VO. Now further on knoll. ♂RR followed her. Near each other. 2<sup>nd</sup> ♂ here also. 1107. ♀ back to locusts. ♂261 here also. ♂RR also at 1112. All 4 here. ♀ flew to Live Oak in corner. 1115. Birds lost. Cooper Hawk just came in. Shut everybody up. 1125. ♀ found, is in Live Oak. ♂261 here, ♂RR here also. ♂y by barn. 1131. ♀ to VO by fence followed by ~~♂~~ both ♂261 + ♂RR. 3<sup>rd</sup> ♂ there now too, but none close to ♀. 1147. ♀ to locusts w/ everyone else behind barn. ♂RR + ♂261 seen back there. 1154. ♀ flew to Sycamore across road. Displaced a Magpie! Birds back in locusts: ~~♂RR~~, ♂RR, ♂261 behind.



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Melanerpes formicivorus

y

Hastings Reservation

(3 June)

♂y to trees along crk toward Plaque. Don't know for sure where ♀ is.  
1215. ♂y in VO by fence. ♂ RR behind barn; 3rd bird in front of barn (♂261). ♀ prob. behind barn also. Now ♀ in small Blue Oak on knoll; 2♂♂ flew up there, but not right to her. ♀ flew off further to left at 1235. ♂y to locusts in front of barn. ♀ in mid-knoll. 1241. Lost her. Birds over hump of knoll? Bird in Mid-knoll (♂261). 1246. ♂RR and ♂y behind barn. 3rd ♂ there also. ♀ in front of barn at 1251; eating an acorn. 1318. ♀ in 2nd (mid) sycamore hawking. 1323. ♀ back behind locust. 1♂ flew to pines along old Co. road. ~~One of~~ One of ♂♂ picking out nice acorn. ♀ greeted ♂ RR and 2nd ♂. 1355. ♀ and 2 others flew to VO perch tree on knoll. //

1435 Back again. ♂y front of barn. ♂ also behind barn (♂RR). ♀ there also. ♀ flew to Live Oaks across road - A ♂ followed her.

Holes checked; none in the nest hole.

1500. ≥3 birds in VO by fence. ♀ among them. ~~♂y~~ ♂y in front of barn; ♀ in front of barn too. 1512. ♀ back to VO by fence followed by 2♂♂. Going to left. ♀ in small blue oak. 1514. ♀ lost.

1525. ♀ in <sup>large</sup> Blue Oak, with 2-3 others sapsucking - ♀ back to small blue oak. Now to VO by fence. ♂RR landed near her. ♂261 followed also.

♂♂ now following her to locusts, but not getting very close. ♂y not seen. 1535. ♀ lost. ♂RR by barn though. 1536. ♀ behind barn.

♂RR below her. 1555. ♂RR, ♂261 still in front of barn. ♂RR to Live Oaks across road. Then returned at 1602 to behind barn. Now ♀ in VO by fence.

2♂♂ joined her, but again did not land near her; just to same tree. 1607. ♀ and ♂RR and ♂261 to Blue Oak Sap tree; 4th bird joined them

1611. Lost ♀. 3 birds still in Blue Oak. ♂RR hawking in '75 nest tree, flew to ground. ♀ there also at 1612 in '75 nest tree. ♂261 above her.





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Melanerpes formicivorusHastings Reservation

(3 June)

♂♂ (261, RR) definitely stay within reach of her, but neither are trying to get on top of her! 1615. ♀ back to an apparent water hole in small Blue Oak on knoll (just to the right of the '75 nest tree). Now ♀ back to '75 nest tree. ♂RR several feet below her. 1-2 other ♂♂ left tree.

1625 1627. ♀ to Blue Oak sap tree. ♂RR followed her, followed by ♂261.

Now ♀, ♂261 to perch tree above sap tree. ♀ to Sycamore roost tree, followed by a ♂ at 1631. ♀ to roost hole. 1634. ♀ followed by 2 ♂♂ to Valley Oak along creek; looked briefly like ♂RR was going to make a move, but no - Now all have flown to the Pump Valley Oak! Then off to Canyon, apparently.

Holes checked again, no one in them.

1650. No one relocated yet.

1700. ♂Y in front of barn. (The one who keeps getting left out.)

1710. All 3 others (♀, ♂RR, 261) landed together in front of barn. [These 2 ♂♂ follow her almost like vultures]. 1717. ♀ behind barn, ♂♂ 261, RR several ft. away from her. ♂Y not in vicinity. 1721. Intruder just chased by ♂♂ only. 1725. ♀ flew to large Blue Oak up Red Hill [on HNHRR] followed by ♂♂. ♂261 seen there. ♀, ♂RR there also; still <sup>no 2</sup> birds particularly close, but yet not out of each other's sight.

1738. All flew to behind barn, inc. ♂Y coming from the knoll. All 4 there now. 1744 ♀ flew to water trough. Back up. ♂RR now to water trough. 1750. ♂Y in front, others behind barn. 1803. ♀ to VO by fence, now to small Blue Oak again, followed by 2 ♂♂, who briefly mounted each other! [the ♂♂]. Now further over to Blue Oak. 1808. Now ♀, ♂RR, ♂261 all in '75 nest tree, all keeping their distance.

♀ flew to ground pecking at bare area. 1815. ♀, ♂261 still in '75 nest tree. I'm breaking - [1830. Still 2 eggs in nest].

1850. Nobody. 1900. ♂Y, ♂RR, ♂261 behind barn. ♀ eating acorn. 1905. ♀, 1-2 ♂♂ in VO by fence. ♂Y above her. ♀ to small Blue Oak, followed





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(3 June)

closely by ♂261. 1910. In mid-knoll somewhere. Now in Blue Oak sap tree. 1912. ♀ to small Blue Oak (to water hole). 1913. To VO by fence. Followed by ♂♂. 1914. To back of barn. ♂4 seen there. Others now returning from across the road. Disappeared. 1925. All 4 behind barn again. 1933. ♀ to water trough, followed by ♂. 1945. ♀ sitting behind barn, ♂RR nearby. 1950. ♀ to Live Oak across road, followed by 2 ♂♂. 2025. Still have not seen/heard/found them again. 2042. ♂4 in staging tree (alone), flushed to '75 nest tree.

At dusk, I watched the sycamore, where 1 bird (♂4?) did return and roost, but there was no real staging, and except perhaps for a 2<sup>nd</sup> bird maybe roosting there also I don't know where the others roosted.

4 June

630. One bird only behind barn. Nobody else seen. (Probably ♂4el)

645. Another on side of School Hill, (not in canyon). Noone in hole.

650. 3 to Blue Oak sap tree from front of barn. ♂RR and ♂261 2 of them.

♂261 to <sup>bare</sup> ground by '75 nest tree, pecking at ground. 702. ♂RR + ♂261 still here on knoll. ♂4el at barn doing some chasing of intruders. (Only bird here).

713. ♀ now flew to front of barn, followed by other 2 ♂♂. Still nobody really close to anyone else. 715. ♀ hawked, went to back of barn. 718. ♀ and at least 1 ♂ hawking in sycamore along creek towards Plaque. 722. ♀ to front of barn. ♂4el to ~~back~~ back of barn; ♂RR, 261 joined ♀ in front of barn. 724. ♀ eating acorn. 732. ♀ to <sup>mid</sup> Sycamore by creek again. 734 back to front of barn. 742. ≥ 3 birds behind barn now. 745. ♀ in sycamores along creek. 747. All behind barn. 749. A chase in the sycamore. 753. I've lost everyone. 755. Someone behind barn again. 758. ♂4el displacing an intruder (♀?). ♀ intruder now in front of barn, softly Carricking. ♂4el still here. Other 3 residents gone. 800. ♂RR chased the intruder.



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(4 June)

♀ intruder still here. 811. ♀16 to locust in front of barn: drummed for several seconds. Alone. <sup>813</sup> Now a ♂RR below here. 823. ♀ to mid-sycamore (a 2<sup>nd</sup> bird hawking there. 830. All 4 to behind barn. 837. all to front of barn. 845. All behind barn. ♀ hawked, landed in sycamore. 847. A bird going to pines up along road. 850. ♂RR in front of barn, plus another who just flew to the Live Oak in the corner. 855 ♀ in front of barn. 856. ♀ to back of barn, chasing Magpies back there. 901. ♀ to front; 902 to back. 910. Don't see anyone. ~~917~~. 917. Bird possibly seen heading to the canyon. 920. I'm breaking. (1000. Checked nest: 3 eggs).

1020. Back. ~~From~~ Bird landed in front of barn, probably an intruder as was soon displaced. ♂Yel displacing the intruder. 1034. ♂Yel still only bird here. 1036. ♀, others to back of barn. 1043. ♀ intruder in front of barn; ♂261 here but did nothing, ♀16 chased her off. 1045. 2 ♂♂ in Live Oak in corner, ♀ still in front of barn. <sup>1047</sup> ♀ joined them in Live Oak where they're sapsucking. 1050. ♀ followed by 2 ♂♂ flew to the sycamore roost tree. ♀ exploring a cavity facing me. 1054. Bird hiding in hole. ♀ at entrance to the roost hole (in shade) ♂RR here. ♀ <sup>in</sup> roost hole. ♂RR near her. 1110. ♀ still here. 1115. ♀ to front of barn, followed by 1-2 birds. 1117. ♀ behind barn. 1122. to front. ~~1137. ♂RR~~ 1138. Front of barn. 1139 to Live Oak. <sup>a bird</sup> continues to Pines along the road out of sight. 1140. ♀ in front of barn, ♂RR nearby. 1142. ♀ to mid-sycamore. 1143. to front of barn. 1144. behind barn. Front of barn. 1148. I'm leaving. (being almost totally wasted).

1545. Back again. Heard birds at barn but I don't see them.

♂RR here after all, flushed to VO along fence. 2<sup>nd</sup> ♂ there also, plus the ♀.

1550. ♀ intruder by barn, chased away forthwith by ♀16. ♂♂ did not take notice at all. ♀ now behind barn, joined by ♂RR. 1552. ♀



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Melanerpes formicivorusHastings Reservation

(4 June)

flying over to the Y sycamore, followed directly by 2 ♂♂. 1555. ♀ to mid sycamore (along creek) followed by ♂RR. 1556. ♀ to behind barn, followed by ♂RR and ♂261. Even ♂4el back there now. 1628. ♀ flew to Live Oak in corner, not followed by others who are still behind the barn. 1631. ♀ to Blue Oak sap tree? lost temporarily. 1635. All lost. Nope - 1640. ♂RR, ♀16 in mid knoll along with ♂261. 1643. ♀ flew up to ♂261, then ♂261 flew over nearer to ♂RR! 1700. ♀, ♂RR still in mid knoll, others by barn? 1701. ♀ to small Blue Oak. Going to drink. 1703. ♀ now going to barn. Now going behind barn, followed by ♂RR. 1708. ♂RR, ♀, 3rd bird in middle sycamore. 1709. 3 birds took off toward canyon - led by ♀? All seen sitting near the perch where they sit above the canyon. 1725. Nobody returned yet. 1726. ♀ sub ~~by roost~~ by roost sycamore now. No one here to do anything. Intruder now going to the barn. Wrong - ♂4el here the whole time and did nothing! Others now coming back - ♂261 here now but not doing anything either. 1735. ♀ and ♂RR still gone. 1750. Still only ♂4el in front of barn. 1755. Other(s) in roost sycamore, flying to the Live Oak in the corner. 1805. Still in Live Oak? ♂4el still in front of barn. I'm breaking.

1930. ♂4el in VO by fence, others apparently near roost tree. 1936. ♂261 above roost hole. ♂RR and ♀ there also. ♀, followed closely by the ♂♂ (322, 261) flew off to Valley Oak storage tree(?). Can't find them. 1946. Back to barn? ♂4el in VO along fence, another in sycamore along the creek toward Plaque. 1955. ♂4el moving. Others getting lost. Can't recover them. 2020. Still lost - going to hole. No one in hole. 2030. One call near big Valley Oak - several birds there? Can't see much. ♂RR by roost hole, plus 2 others, none by nest hole. 2050. Still no one in nest hole - no one roosted here.





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Ha ~~Ha~~

16a

Melanerpes formicivorusyHastings Reservation9 June

1140. Watching nest. ♂ in hole.

~~1158. ♂ left hole.~~ 1210. ♀ 16 came, but was scared off by me. ♂ still in hole.

1215. I'm too close. This time ♂ RR came, other ♂ flew out, then ♂ RR flew off also, probably because of me.

1220. New spot. No one in hole now.

1315. No one's returned yet. Guess I'll try again tomorrow.

11 June

1000. Watching nest. ♂ in hole.

1018. ♀ 16 took over. ♂ left hole.

1055. ♂ 261 took over. ♀ left hole.

1145. ♀ 16 back again.

1211. ♂ 322 came, but did not stay. ♀ still in hole.

1230. Leaving. ♀ still in hole incubating.

12 June

1020. Watching nest. ♂ in hole.

1054. ♀ 16 took over. (Somehow the pattern here seems to be predictable!)

1141. ♂ 322 landed at hole, then flew off. ♀ left hole, which is now empty.

1210. Nobody's returned as yet. I'm leaving. (There's also an accipiter in the canyon here somewhere, I might add, possibly aiding in keeping the birds away).

15 June

1130. Flushed a ♂ out of the hole to check the eggs, which are all warm and opaque and fertile.

16 June

1130. Flushed ♀ 16 out of the hole. All 4 eggs are still warm and unpipped. I drew a line around the 4th one so I can be sure to identify it when it hatches.

1900. Checked the nest again. All 4 eggs are pipping - plus one ~~can~~ can hear weak cheeps and an occasional click from the eggs themselves. ♀ 16 was in the hole. #3 egg was most advanced - with a small hole already, other 3 with small dents only.



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Melanerpes formicivorusy  
inHastings Reservation17 June

950. Now that it had cleared up outside I ventured to open the nest and measure the 4 babies, all of whom have hatched.

They were all marked with Magic Marker dots and returned within 1/2 hour. See Nest Record (pp. 9-10) for measurements.

♂261 was the bird flushed out of the hole.

Finally, however, I can state with some certainty that the incubation period for the California Woodpecker is indeed several days shorter than previously thought. For this nest, the maximum time between the laying of the last egg to its hatching was 12 days, 0 hours; minimum 11 days, 0 hours (plus an unknown number of hours which I can perhaps estimate for how long they probably took to hatch from the stage of pipping I found them in yesterday evening).

18 June

1420. Watching: ♂ in hole.

1452. ♀16 entered the hole. [♂ apparently left it].

1509. ♂<sup>NWS</sup>~~261~~ " " " ♀ left

1511. ♂322 " " "

1511.5. ♂<sup>NWS</sup>~~261~~ back ~~in~~ almost immediately; entered hole.

1514. ♂<sup>NWS</sup>~~261~~ at hole!! I fear ♂364 may have lost his wing-streamer and be messing things up entirely. I'd best quit and watch with the spotting scope carefully from now on.

19 June

1000. Measured the 4 kids.

21 June

1000. " " " " No sign of feather tracts yet.

Noone in hole when I came over to open the hole.

1620. Watching. ~~♂261~~ ♀16 in hole. (Using spotting scope this time).

1625. ♂261 (for sure) took over



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Melanerpes formicivorus

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Hastings Reservation

(21 June)

1636. ♂261 left without a replacement.

1646. A ♂ slipped by me and is now in the hole (is ♂261 again).

1648. Flew away again leaving the hole unattended.

1652. ♂261 back again with food in bill.

1655. ♀16 came with a billful replacing ♂261.

1710. ♀ left w/o a replacement.

1712. ♂ looking out! Left hole

1715. ♂RR#322 came w/ food.

1723. ♂322 left hole

1724. ♂261 entered hole. Left at 1725.

1725. ♀16 entered hole w/ food. Left very soon thereafter.

1731. ♂261 to hole again. 1732. Left hole.

1741. ♀16 in. 1745. ♀ out, removed fecal sac.

1746. ♂261 in. 1747. Out.

1749. ♂261 in again. 1750. Out.

1752. ♂261 in again. 1753. Out.

1756. ♂261 again. 1756.2 Out.

1817. ♀16 with big load of food.

1820. Leaving. All feedings, best I could tell, were of insect material.

I'm sure about the identities I state above today. Apparently, however, ♂364 is involved little if at all in this operation, and thus I suspect my identifications for previous watches (based solely on wing-streamers or lack thereof) were probably ok as well. I'll find out for sure when I see ♂364 again.

22 June

1540. Watching hole. No one inside.

1600. ♂322 came, went in as ♀16 came. Both fed and left soon after.



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Melanerpes formicivorusy  
mHastings Reservation

(22 June)

1618. ♀16 fed, left after 20 sec.

1619. ♂RR #322 came w/ big billful of insects; left at 1620.

1627. ♀16. Left 1629.

1630. ♀16 again (with more food even!) Left just after ♂261 arrived.

1631. ~~♂~~ 261 came. Left 1636.

1707. ♀16. Left after 15 sec.

1713. ♂261. Left " " "

1725. ♂261. Stayed only briefly. #

1727. ♀16. Stayed 30 seconds.

1730. Leaving. Again I made out no acorns being fed.

23 June

1000. Again the nest was unattended as I came to measure the babies, all 4 of whom are still kicking. Developmentally, their eyes are still closed, their ~~to~~ feet, tarsi, and bills are still pink, their ~~to~~ claws are just darkening, and the feather papillae are distinct rods that have not yet coalesced on their wings, back, shoulders, and top of head. They still rasp and squeak regularly, and their egg tooth is still evident.

1620. Watching nest. (Times in nest are estimates only).

1627. ♂261 (15 sec, removed fecal sac).

1633. ♀16. (90 sec.)

1635. ♂261. (15 sec.)

1640. ♂261 (10 sec.)

1641. ♂RR #322 (20 sec, possibly brought acorn bit; removed fecal sac).

1642. ♀16. (10 sec.)

1642.5. ♂261 (15 sec.)

1650. ♂261 (20 sec.)

1652. ♀16 (?)





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(23 June)

1654. ♂ 261 (15 sec.)

1656. ♂ 261 (10 sec.)

1657. ♀ 16 (15 sec.)

1659. ♂ 261 (1 min; possibly had acorn bits; removed fecal sac).

1704. ♀ 16 (30 sec.)

1716. ♀ 16 (30 sec.; fed insects; removed fecal sac)

1720. ♂ 261 (20 sec., removed fecal sac).

1721. ♂ 322 (10 sec.; fed insects).

1724. ♂ 261 (8 sec.)

1727. ♂ unid.

1733. ♀ 16 (12 sec.; fed insects, removed fecal sac).

1735. ♂ 261 (10 sec.)

1738. ♂ 322 (10 sec., fed acorn bits).

1739. ♂ 261 (20 sec. " " " ).

1740. ♀ 16. (10 sec.; removed fecal sac).

1742. ♂ 261 (?)

1743. ♀ 16 (20 sec.; fed insects)

1800. Leaving. Good watch!

1805-1830. Watched down at the barn, seeing the 3 birds (all except ♂ 364, who will have to be found soon!) ♂ 322 was in the trees in front the whole time; ♂ 261 ate some acorn for a few minutes, then went off to the knoll. The ♀ landed in the front autonomously and then flew behind; no ♂♂ made any attempt or pretence to follow her, unlike during the laying period and before.

At dusk, most of the activity was up near the nest (lots of harritcutting and the like - I wonder about the idea of the last bird "announcing" his retreat to spend the night in the nest) but I



Melanerpes formicivorus

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(23 June) Hastings Reservation  
fear that I was down watching the sycamore (looking for ♂364, among other things) and saw nothing whatsoever roost there -

24 June 755. ♂41#364 behind barn; then flew to front to greet some bird(s) there. Good - he's definitely here after all, and all's well.

1912. Watching / 1913. ♀16 fed.

1915. ♂322 at lip; flew off at 1930 w/o feeding.

1940. ♀16 (removed fecal sac) / 1944. ♀16 (stayed 3 min).

1948. ♂322. / 1951. ♀16.

2000. ♂261 (fed insects) / 2002. ♂261 again

2003. ♂322 (" " ) / 2003.5. ♂261

2007. ♂261. / 2010. ♂261 (1 min)

2012. ♀16 (removed fecal sac) (fed insects) / 2025. ♂261.

2033. ♂261.

After all this I fear ~~the~~ I botched getting the identity of the bird roosting in the hole: it was definitely either ♂261 or ♂322, definitely only 1 of them, and he came at 2054, by which time it was dark enough that I really could not be certain which he was. Otherwise, at least 1 bird roosted in the big Valley Oak here also.

25 June 950. Measured the kids. Developmentally, the most developed (DB-LP) has eyes which are closed, but can be pulled open a bit with my fingers; <sup>(claws)</sup> toes are dark, the top median ridge of the bill is darkening also, while the lower mandible, remainder of upper mandible, tarsi and legs are pink. The upper mandible is just barely shorter (<1mm) than the lower. The papillae on the ~~feather~~ tail are just barely sticking thru the skin (look like short (2mm) spines)

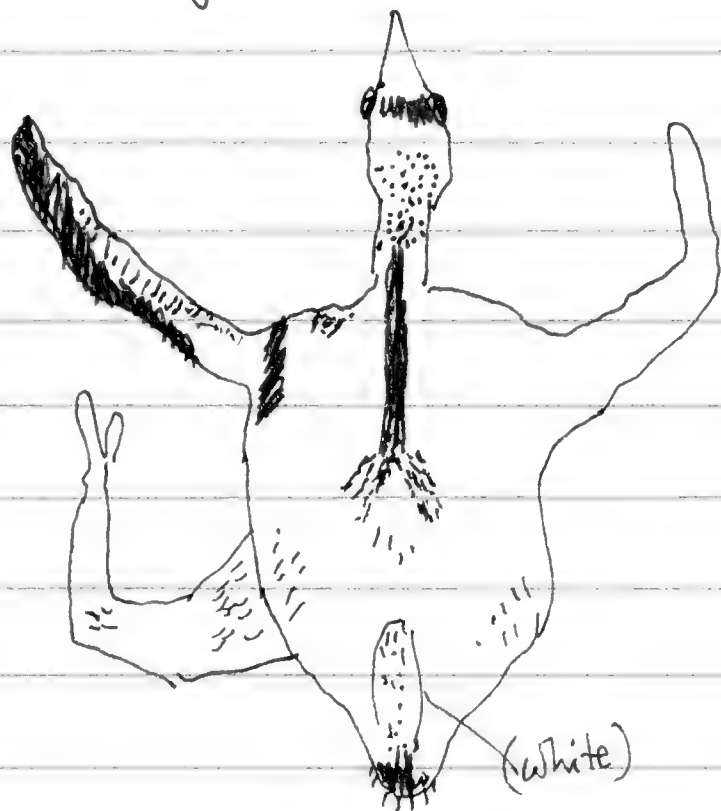


Melanerpes formicivorus

y

Hastings Reservation

(25 June) the tracts of the back, wings, top of head between eyes, have all coalesced; the papillae on the lower back and top of leg are still individually recognizable, as are those on the back of the skull



Eyes of #4 are open a crack.

I returned at dusk to see who roosts here:

2015. Watching. Babies making lots of noise.

~~2015~~ 2050. ♀16 landed at hole, went inside, flew off after 15 seconds.

2054. ♂RR#322 went in hole, left after 10 seconds.

2055. ♂261 went in hole, left;

2055.5. ♀16 landed at hole again, went inside briefly, left.

2057. ♂322(RR) landed at hole, went inside and stayed.

Others are roosting in the big Valley Oak just up the canyon.

2105. Leaving.

1915. Watching.

1936. ♀16 (fed insects).

/

1940. ♂RR#322 (fed insects)

1945. ♀16 ( " " ).

/

1959. ♀16 (removed fecal sac).

2000 ♂322 (removed fecal sac) /

~~1959~~ 2025.

Moving closer for the roost watch.

♂322  
roosted in  
nest. →

26 June





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Melanerpes formicivorus

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Hastings Reservation

(26 June)

2039. ♂ 261 came with food but did not go in, possibly because of me.

2052. ♀ 16 came, stayed to 2055 when -

2055. ♂ 322 came, stayed only very briefly.

2100. ♂ 261 came, went in hole, started looking out.

I thought he was definitely it until

2102. ♂ 322 came, went inside; 3 seconds later one of the birds flew calling out toward the main area.


Needless to say, I don't know for sure who stayed and who left, but my guess is that ♂ 261 remained; in any case, it seems pretty clear that both were ready to assume that duty if necessary.

27 June

735. Watching.

746. ♀ 16 (removed fecal sac) (loaded w/ insects). / 757. ♂ 261 (fed insects). Followed immediately by 757. ♀ 16 (loaded w/ insects). / 812. ♂ 261 ( " " ) Left at 825. Removed fecal sac.  
825. ♀ 16 ( " " " )

835. Leaving. Back shortly to measure the babies.

905. Returned to measure the kids, who are all fine. Developmentally, their eyes are <sup>now</sup> open (not wide, but open nonetheless); the upper and lower mandibles are now the same length; the white egg tooth is still present though; ~~the~~ claws and upper mandible darker (  white egg tooth edges & ridge darkening ) Feather papillae of remiges, rectrices,back, <sup>wing</sup> coverts, <sup>tail</sup> coverts have all broken through the skin; crown can be seen to look red but feathers not through skin there yet. Tracts have about all coalesced; on lower back papillae are distinct rods looking like splinters. Papillae are all out of the skin by < 1 mm (except remiges/rectrices).



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Melanerpes formicivorus

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Hastings Reservation29 June

1000. Measured the babies. The latest developmental report:  
 Upper mandible all darkish; lower still dark only along central  
 ridge. Claws quite dark, toes <sup>tarsi</sup> still pink. Eyes wide open.  
 Red crown feathers just barely popping thru skin.  
 Most all papillae thru skin; feathers just barely  
 breaking thru the sheaths in ~~rectrices~~ rectrices, wing coverts,  
 body feathers. Sheaths not quite broken in remiges.  
 Egg tooth small but still conspicuous.

1630. Watching nest.

1650. ♀16 (removed fecal sac). / 1703. ♀16.

1710. ♂261 (fed insects). / 1714. ♂322 (fed insects).

1724. ♀16 ( " " )

/ 1741. ♂261 ( " " removed fecal sac)

1802. ♀16 ( " " removed fecal sac)

/ 1803. ♂261 (just dipped inside possibly did not feed)

1805. ♀16 (needed only to dip inside to feed babies! Tail visible the whole time.

1815. Leaving. —

2030-2100. At dusk, the activity consisted of ① ♂322 briefly  
 entering the hole at 2052; ② ♀16 entering for a minute at 2055,  
 and finally ③ ♂322 returning at 2058 to stay for the night.  
 "Several" others obviously are roosting next door in the big Valley  
 Oak.

♂RR#322  
 in hole to  
 roost

30 June

1515. Have collared the babies and am now watching the nest.

1543. ♀16 (insects). Went all the way into the nest.

1602. ♀16 landed on lip; stayed to 1614 dipping shallowly twice; probably did not feed.

1615. Going to recover whatever I can.

1730. Recovered more insects after leaving the babies collared another hour



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Melanerpes formicivorus

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Hastings Reservation

(30 June) 2040-2105. The dusk watch was pretty full tonight - no visitors except ♂RR#322 at 2058, who once again stayed the night. At least 2 of the others roosted in the nearby Valley Oak; I do want to know if ♂364 is doing so.

1 July

Steve Dobson reports having seen all 3 wing-streamlined birds (including ♂364) over at the hollow while he was out watching ground squirrels today.

950. Measured babies. The most developed (in fact, all but the runt) is as follows: bill darkening still; claws dark; toes now beginning to darken as are tarsi. Egg tooth still inconspicuously present on top mandible only. All feathers now just out of sheath on body, wings, tail; <sup>red</sup> crown not out of sheath yet. Babies can hang on a ~~vertical~~ vertical surface but don't seem to be in to climbing yet. Remiges are just barely ~~not~~ broken thru their sheaths - those which have are 10 - 1 to 4 and 20 - 1 to 3 only in DB-Mauve; all are barely thru sheaths in DB-LP. Extensive sections of the belly, lower back + breast are still bare.

1505. Watching nest.

1550. ♀16 (clearly dipped and fed) / -

1610. ♀16 at lip w/ an entire 1/2 of a smallish (≈25mm in length) shelled acorn, but won't go inside. Finally moved aside when the next bird came at

1620. ♂261 (fed insects, clearly dipped) / -

1651. ♂261 (clearly dipped) / 1702. ♂261 (fed acorn bits)

1703. ♀16 (fed insects, went inside briefly after dipping inside to feed).

1710. ♂261 (dipped) / 1711. ♂322 (went inside).

1712. ♀16 (went inside) / 1720. Leaving -

At dusk, ♂322 made it 4 out of 4 and was the only bird I saw come to the nest (he arrived at 2053).

2 July

Came only at dusk today, when ♂322 came, then left,





Melanerpes formicivorus

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Hastings Reservation

(2 July) followed several minutes later by the nightwatch, whose identity I could not be sure of tonight, though I did see a tell-tale white out-of-place feather on his left side which I presume to have been the disarray due to a wing-streamer, meaning that it would be ♂322 once again.

3 July

1000. Measured the kits. Development: upper mandible, claws all dark; toes, tarzi all grayish; lower mandible grayish. All feathers except red ones on crown broken thru their sheaths. Bare areas on belly, sides and back still considerable but diminishing. Egg tooth still present on upper mandible only. Can hang on, climb well by now. Ear still prominent behind short head feathers.

1045. I've returned 2 of the babies, collared, and am going to wait for a couple feeding trips.

1124. ♂261 fed.

1130. ♀16.

1131. ♂261.

1135. Recovered quite a few food items.

2055. At dusk tonight, it was ♂322 again for sure roosting with the babies. Once again, at least 3 of them (I'll have to check about ♂364) get together in the large Valley Oak beforehand, where all but ♂322 clearly are roosting. Thus, it's clear that this is an organized affair: ♂322 knows he's the one to be in the nest and in most instances ♂261 doesn't even come near the nest at dusk (see above, however - one night when both came). In particular, it's not just whoever happens by the nest first (or last) who stays.

4 July

At dusk tonight I watched the large Valley Oak in hopes of seeing ♂4el roost. Not only did no-one at all





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Hastings Reservation


(4 July)

roost there, but as far as I could tell nobody even roosted in the nest hole, despite the clear indication that one or more birds visited the nest while I was hitting away from it! I suppose I have to assume that at this stage (17 days) the 4 of them are able to pretty much thermoregulate for themselves. In any case I'll have to watch next chance I get to make sure.

5 July

1000. Measured the kits, all of whom have lost some weight since last time. Developmentally, all feathers are now thru their sheaths, tarsi, legs, upper mandibles are dark, lower mandible still darkening; egg tooth and lower mandibular folds (x) still barely present; tummy still quite bare but back is pretty well covered when bird is huddled. Ears still visible but nearly covered with feathers now. Neck still bare except for "prickles"

7 July

1000. Measured the kits, only 3 of whom remain (no trace could be found of the runt in or below the nest). A tiny bit of egg tooth remains on the upper mandible, and the folds are still barely present. Tarsi, toes, upper & lower mandibles are quite dark. The kits were not vainly rasping for the 1st time when I came to the nest. They can hitch up quite well now on a rough surface. The only conspicuous remaining bare spots on their bodies are on their belly (  ) and their chins to their

Bare  Vent

eyes, which still have mere prickles for feathers. Their backs are covered completely. They were collared and returned at 1115.



Melanerpes formicivorus4Hastings Reservation

(7 July) 1700. ♂ 41W#364 sitting in locusts in front of the barn (alone, best I can tell).

8 July 2045. At dusk, I arrived and saw no one looking out of or entering the hole - once again it was left empty (save for the kids).

9 July 950. Measured the kids, who look now like real baby woodpeckers finally. They hang on quite adeptly to any <sup>(rough)</sup> ~~vertical~~ vertical surface. Just a trace of the egg tooth, mandibular folds, and heel pads are still visible. Eyes, mandibles, toes, tarsi, and claws are all dark. They still are bare on the lower belly and have prickles for chin feathers. They don't try to fly anywhere yet, however, and these guys still have a distinct bare line down the center of their crowns. They're cute

11 July 1000. Measured, banded, and bled the babies, who are #s 414, 15, & 16. No new developmental breakthroughs since last time, however; Heel pads, mandibular folds, and egg tooth are all still just present; feathers under the chin are still not covering the skin; otherwise the only bare spot is on the lower belly. The <sup>bare</sup> medial ridge in the crown is no longer conspicuous. The babies definitely shut up once they heard me coming. Ear holes can still barely be made out.

They still don't fly at all, but flap their wings to keep balance.

12 July 1445. Watching the hole.

1450. ♂ 261 fed. Babies were coming out the entrance of the hole even (just their bills).

1455. ♂ 261 fed again. / 1457. And again ♂ 261.

1532. ♂ 261 again. / 1537. ♂ 261 again. / 1540. ♂ 261 yet again.

1547. ♂ 261 / 1557. ♂ 261 / 1605. ♂ 261 / 1619. ♂ 261. / 1626. ♂ 261 / 1635. ♂ 261

1645. Leaving. Rather a one-sided affair today. I should say -



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Melanerpes formicivorus

Y

Hastings Reservation

(12 July)

2045. Once again, no adults spent the night in the nest with the babies.

13 July

1000. Measured and wing-streamlined the babies. The kids pecked at me for the first real time and also tried to get away (they still couldn't fly at all however.) Egg tooth is still just a fleck of white; ears are covered but belly still has a slight bare spot and the chin isn't covered yet.

1115. ♂ 364 #264 seen at the barn.

14 July

1155. Watching the nest. Babies can get their heads all the way out now.

1210. ♂ 261 fed. / 1224. ♂ 261 / 1225. ♂ 261 /

1236. ♂ 322 (finally!) / 1246. ♂ 322 / 1255. ♂ 322

1257. ♂ 261 / 1307. ♂ 261 / 1308. ♂ 322 / 1310. ♂ 364 #264!!! Wow!

1315. ♂ 322 / 1331. ♂ 261 / 1332. ♂ 261 / 1338. ♂ 261 / 1340. ♂ 322.

1344. ♂ 261 / 1347. ♂ 364 again! / 1349. ♂ 364 again!

1350. ♂ 364! / 1351. ♂ 261 / 1357. ♂ 364 / 1357.5. ♂ 261. 1359. ♂ 364.

1400. Leaving. An astounding performance with 5 visits by ♂ 364 (who'd I'd never even seen near the nest before!) and still no feedings by the ♀.

15 July

1000. Measured the kids for la dernier temps. Still a trace of egg tooth left on them, but all body parts are covered with feathers now, with the exception of the chin, which has feathers but ~~is~~ ~~not~~ where the skin can still be seen. They are real sweethearts.

17 July

1045. Watching. / 1108. ♂ 364 fed. / 1111. ♂ 261 / 1112. ♂ 322.  
1114. ♂ 261 / 1119. ♂ 261 / 1120. ♂ 261 / 1121. ♂ 261 / 1132. ♂ 364 / 1134. ♂ 322

1144. ♂ 322. / 1145. ♂ 261 / 1148. ♂ 261 / 1158. ♂ 261 / 1206. ♂ 261 / 1208. ♂ 364.

1209. ♂ 322 / 1210. ♂ 261 / 1224. ♂ 261 / 1227. ♂ 322 / 1231. ♂ 364.





1977

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Melanerpes formicivorusYHastings Reservation

(17 July)

1232. ♂261 / 1233. ♂364 / 1235. ♂261 / 1244. ♂♂364 and 261 / 1244.5 ♂322.

1245. Leaving.

18 July

1135. All 3 ♂♂ at the barn or the knoll. No sign of the ♀.

19 July

730. Watching. Babies' head well out of hole.

751. ♂261 / 807. ♂261 / 811. ♂261 / 813. ♂364. / 814. ♂322 /

835. Leaving. The birds are pretty close to fledging for sure.

21 July

1300. Walked by the nest, which is empty. Only bird I ran across in the vicinity was j414, who was alone just above the nest area and then flushed down to the nest tree.

22 July

845. ♂322 seen up on the knoll.

1100. ♂364 seen feeding one of the babies up on the far knoll; is

③ jWh #415.

23 July

800. Watching. ① j414 by barn; ② ♂364 seen. ③ jLBW #416 by barn. j416 &gt; j414 in an interaction while vying for being fed by ♂364.

805. Some Garricks by some bird near the barn now. Also by a bird near the UD storage tree.

808. There's at least 1 intruding, banded ♂ here by the barn. Was just displaced by ♂364 and ④ ♂322.

810. Meanwhile there are several intruders around and no sign of dear old ♀16.

815. There are strange birds inconspicuously all over here - mostly banded ♂♂! Some drumming and garricking.

822. Here's a ♀ drumming + garricking in the sycamore roost tree.

825. There's no question about it - a revolution is brewing here.

830. All 3 ♂♂ (inc. ♂261) together behind barn.

831. 22 intruders being taken care of in various quarters.

840. The ♀ still Garricking in the roost tree.



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Melanerpes formicivorusHastings Reservation

(23 July)

845. Still some chasing and Garricking going on. Leaving for now. If nothing else, it now seems quite certain that ♀16 is gone.

24 July

850. Still several obvious intruders around; some Garricking.

1045. Same as before. ♂415 and ♂364 at barn.

1055. Watching. Pretty quiet right at the moment. ♂322 at barn.

1102. Everybody (the 3 ♂♂, 1-2 juvs) in far knoll. 1 bird Garricking from side of School Hill; 1 other intruder over here. [♂261].

1112. There's an ub ♂ up in the far knoll not being chased. Just flew to the corner Live Oak. Everything quiet, really.

1118. All quiet for now. Leaving.

29 July

1130. jLB#416 flushed by the water-trough as I walked by.

1900. Despite the low-level of but consistent amount of "revolution"-type activity (an intruder or 2, garricks now and again, etc.) that seems to have been here for the last several days, all is dead quiet right at the moment.

1902. jWhW#415 in far knoll.

30 July

825. 1 Garricking bird is in the sycamores across from the barn; a Garricking ♀ is in the sycamore roost tree.

828. ♂322 in front of the barn. All in all not a lot of activity - just the same low-key type of revolutionist activity as has been here for the last week at least.

835. Leaving. Pretty quiet at the moment.

Purge: ♀16. last seen feeding young on 3 July, not attending nest when next watched on 12 July → Dis. about 7 July 1977.

2 August

650. Several chases in front of barn - ♂RR, LG#322, 364 plus 2 juvs behind barn; 2-3 birds still in front of it.

658. ♂(id unknown) just took off from front of barn toward Mac Roberts.



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Melanerpes formicivorusy  
reHastings Reservation

(2 August)

701. An adult Sharpie came by, not particularly interested, because otherwise he could have had a Wpkr for sure - instead he merely landed in front of the barn and sent everyone scrambling off towards the knoll.

709. 4-5 birds, mostly adults w/o wingstreamers, just returned; some chasing by the barn now. Several of the intruders are banded ♂♂ - there's still no obvious glut of ♀♀.

718. Now quiet - ♂322 behind, ♂364 in front of barn. No intruders (or even babies) obvious.

723. ♂DB-LP/M #261 plus an unbanded ♂ in front of the barn.

730. Somebody appeared with a small acorn. Still 3-5 intruders, most or all ♂♂ here, invoking occasional chases, but not any constant, high amount of activity (I haven't even heard a Carrick this morning yet). The light isn't real good, so I've been unable to figure out who any of the intruders are - but it's clear that the resident ♂♂ are the ones doing much of the chasing.

733. ♂JDBLW #414. ♂JWHLW #415 also. Jws do not seem to be doing any chasing.

740. Quiet. Leaving. No ♀♀ yet. But why all the ♂♂ here?

4 August

1350. ♂♂ 261, 322 in front of barn, some action (chasing) still going on -

1353. JLB #416 over on the knoll.

1403. ♀ub at the barn now. Waka ing a lot, but nobody else seems to be here.

1407. Residents came over from the knoll - ♂322 displaced the ♀ several times.





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Melanerpes formicivorusHastings Reservation

(4 August)

Y

1411. ♂261 drilling at an acorn in front of the barn.

1413. Incredibly enough, ♂322 is here next to an unbanded adult ♂ who is not getting chased or anything! Don't know what's up.

1415. ♂41 #364 behind barn preening.

1420. Birds are all over by the creek / sycamore roost tree now.

1425. ub ♀ back in front of the barn; no residents here as yet.

1427. j<sup>wh-Bk/M</sup> #414 plus another landed in front of barn.

1430. ♂ub landed in front of barn (where 1 adult ♂ and j414 are), flicking his wings like a baby when he did so. ♂322.

1432. ♂322 left, followed by the baby; ♂ub still there!

1434. jwhlw #415 plus 2+ of the adults in telephone pole 1/2 way to

Pump.

9 August

The revolution has picked up momentum within the last 2 days and a fair amount of activity can be heard from the barn now, inc. frequent carries. Still is not very intense, however, but I'll attempt to watch again soon.

1800. All was very quiet as I walked by this evening.

10 August

1800. Pretty quiet. j415 on telephone pole, j416 in front of barn.

1802. ♀ub with 1/2 acorn in front of barn; no sign of chasing now.

1805. ♂<sup>wh-Lgt/Dk</sup> #261 in front of barn. ♂<sup>Red/M</sup> #364 behind.

♂RRlw #322 just joined everybody in front. ♀ub still here now in back of barn.

1812. ♀ub still here.

1813. Dominance interaction: j415 &gt; j416 while begging at ♂364.

1816. j<sup>wh-Dk/M</sup> #414 begging / fed by ♂261 in front of barn.

That's everybody, inc. an unrang ♀ who may represent the culmination of the last month of unrest here since the demise of ♀16.





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Melanerpes formicivorus

y

Hastings Reservation14 August

Things had picked up here by this morning. Several times in passing I noted quite a bit of chasing, Garricking, and other revolution-type activity, both at the barn and up on the side of School Hill near the nest. I saw ♂364 and at least one ♀ in the process, but was unable to watch seriously.

22 August

j415 flushed from the water trough at the lower Barn when driving by at 1000.

28 August

1830. ♂YL #<sup>364</sup>~~382~~ and ♂RRL #322 + 3rd ♂ up on side of School Hill. ♀ub at Barn in front preening at the moment.

1835. Now ♂364 is preening along with ♀ub both in front of the barn.

1840. The ♀ is still by barn, looks fairly settled.

1910. ♀ub clearly subordinate to ♂364 in an encounter over a green acorn up on the knoll.

1915. Leaving. I keep hearing young birds, but they are hiding off in various corners away from view. The ♀, at least, looks pretty well set.

1920. jwh#415 and one of the others seen on the knoll. I'm fairly sure the other is jDB#414.

1925. Yes. I do believe it's #414. Birds are now over the knoll is the Valley Oaks out in Blomquist's savannah. ♀ub just picked an acorn. Is fairly dark, however, and I'm going to move on.

29 August

1315. jDBW#414 squawking by barn. The ♀ub just landed by him and pecked at him rather mercilessly for several seconds.

1405. ♂YL#364 in front of barn. ♀ub here also. Also j415 here.

2 September

1100. j415, ♂322, a ♀ub, and some chasing going on here.

Now ♂<sup>Red/M</sup>#364; ♂DB-LP/M #261; jDBL#414 at the trough drinking w/ ♀ub.

1120. Leaving. ♂261 feeding j415; j414 there also: j415 > j414.



Melanerpes formicivorus

Y

Hastings Reservation21 September

1015. A banded ♀ seen sitting on the telephone pole by the corner of the barn fence: ♀ Or/Dk-Or? Didn't look harassed, but no one else seemed to be in the vicinity.

1025. Others are actually nearby - in the area by the VO granary. 24 birds there; ① ♂ DBW (ub?) #415 (wingstreamer lost?) seen.

1035. There is an (ub?) ♀ up preening near ♂ 322 in front of the barn. She is clearly the new one - (and unfortunately is not the banded one I saw earlier). Joined by ♂ 261.

1042. Chase: ♂ 261 of intruder <sup>no mark</sup> ♂ DBRW DB-LP/DBLW #309 (LowHay).

1045. Leaving.

8 October

1715. ♂ RR #322 plus others in front of barn.

1720. ① j [♂-type] WL #415

1726 ③ ♀ ub just came and started preening here.

1732 ④ j [looks like maybe → ♀] DBLW #414. Now getting pecked at by ♀ ub. ♂ 4LW #364.

1737. Now birds are flying over to the Valley Oak storage area by the Y. It will be another couple weeks before I know for sure, but my guess is that 414 is a ♀ and 415 a ♂.

1745. j414 now arriving with an acorn to store. All birds apparently harvesting from near the Y itself. Leaving. ♀ ub definitely in; j416 definitely out.

PURGE: j416. Last seen 10 August. Gone by 2 September → Disappeared about 22 August ± 1 week.

ADD: ♀ 618. Seems to have joined the group, after much prolonged controversy, during late August: Moved As Adult to Y: 25 Aug. 1977.

10 October

1310. 4 birds here, inc ♂ 322, 364 and j415.

17 October

700. Successfully ambushed at the same old hole ('77



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Melanerpes formicivorus

Y

Hastings Reservation

(17 October) nest hole) catching 5 birds: ♂♂ 261, 322, and 364, j♂ 415, and the new unbanded ♀, now #425. All were wing-streamered and dealt with according to their needs. This leaves some doubt as to the fate of j414, seen on 8 October - however, when I released the birds (about 845) one bird was definitely around the lower barn who may have been j414. I can't imagine why she's roosting by herself, however (I definitely got all the birds, for once).

25 October 1600. Seen in passing here were ♂322, ♂364, ♀414, ♂415, and ♀425. ♀414 is a ♀, and is still here! Well - ♂261 here also.

12 November Saw everybody while watching these birds storing acorns in front of the barn: all 6.

20 November 1110. ♀414 up behind the barn.

26 November 1430. ♂322 + several others flying to the Live Oaks by the bridge to pick acorns.

27 November 1250. ① ♂ RW #364 and ② ♂<sup>M/DG</sup> #322 in front of barn. Watching. 1255. ③ ♀ DBLW #414 and ④ ♂ WHLW #415. ⑤ ♀ CHLW #425, ⑥ ♂ ORLW #261.

1310. That's the lot. All here storing away.

24 December ♀414 (DBLW) was right up at ~~the~~ Red House this morning for a few minutes, attracted in part possibly by the captive calling from the porch.

♀414 was seen several hours later down at Y with some other birds

26 December 1300. ♀414 and ♂415 by '75 nest tree examining a recently broken limb.





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Melanerpes formicivorusPumpHastings Reservation2 February

930. 1 AW flushed from the storage tree while a 2<sup>nd</sup> (at least) was in the willows nearby.

23 March

I've completed putting up 2 ~~2~~ storage limbs salvaged from Bianca in the Valley Oak next to the willow tree here, perhaps 1000-1500 holes are involved, and some acorns still remain in the limbs (but very few by now).

These dead limbs are both from the main Valley Oak granary at Bianca and fell during the storm of early January 1977.

25 March

1200. An AW was sitting on the storage limbs as I drove by back from the Arnold! He flushed over toward Y, which is where (s)he had probably come.

2 May

1500. There are at least 2 birds hanging around in the willow, possibly only to drink at the seep. One is ♀WRW, no doubt ♀326, who's been at Y and 1500 for the last several weeks.

20 May

1300. A bird was in the willow granary here Garrick ing for several minutes. By the time I could get here to watch he was gone, however.

17 July

830. Several birds here, some chasing. Most are [clearly?] going for water, but they are mostly hanging around the willows. Seen were ♂DBRW #86, ♂Yel/Red #402, with ♀ub, all from School Hill, along with ♂M/LP-? [#88?] and ♂Red-Green/Yellow [?].

6 November  
Probably  
♂300 living  
at Blomone

837. Now ♂La-Da/M #298 in the willow granary.

850. ♂Or/Yel-Da #297 in willow. ♂298 here also. School Hill birds seem to have cleared out.

900. Leaving.

18 July

825. In the Willow Granary was a ♀ub and ♂LB/LP #296 (not necessarily together).



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Melanerpes formicivorus

Pump

Hastings Reservation

(18 July) ♀ flew to the Valley Oak next to the fence and tel. pole next to the knoll, sat for several minutes and then began Garricking once a minute or so. She was still there when I left at 833.

19 July 850. ≥ 4 birds in the Willow here as I came by to fill up the YP traps.

22 ~~23~~ July 850. 1-2 birds in the area again. Net set up in the Willow. No catch by 1200.

23 July 750. ♂ or ♀ see. #297 plus others at the pump. Net up again.

No catch by 1100.

24 July 800. 1 bird in Willow. Net up. No catch.

1440. ♀ ub plus a juv. in the willow. 1 or more other birds

4 August in the vicinity.

1441. juv is jyel/DP #402 (School Hill)

29 August 850. At least 1 ♂ adult (bands not seen well if present) in the Valley Oak here, flying to the willows as I walked by.

855. A 2<sup>nd</sup> bird on the storage limb in the Valley Oak! 2<sup>nd</sup> bird is ♀ ub.

857. A Garrick and some chasing now. Lots of karrit-cuts by one bird. Something may be up here for real at last.

20 September 1600. Several (4+), birds are here, sitting in both granaries, doing some chasing, Garricking, etc. looks promising indeed.

1700. Several birds still in the vicinity.

21 September 940. 1 bird in the Willow; otherwise quiet. Bird flushed.

943. ♀ ub just flew to Willow with capped acorn; is eating it now.

948. ♀ karriting, flew to the Valley Oak for cover when a Red-tail flew over.

Now a Garrick - more birds?

1000. ♀ ub returned, trilled, was immediately joined by ♂ M/LP #296, who caused the ♀ to leave precipitously.



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Melanerpes formicivorusPumpHastings Reservation(21 September)

1010. Noddy here now. It's not clear that there is a "group" here at last, but it certainly seems possible that there is the beginnings of one!

22 September

1000. Still several birds here -  $\geq 3$ .

1220. Net up

1315. Caught one - ~~♀~~ ♀420. At least 2 others here.

1600. No further catch.

7 October

No sign of any birds or stores in passing at 1745

8 October

1-2 birds here at 1750.

1756. ♀ub landed in the VO storage limb, ♂<sub>LG-Da/M</sub> #298 in the willow.

1759. ♂298 just left.

1800.

10 October

955. 1 banded bird sitting on storage limb in the Valley Oak. A 2<sup>nd</sup>, in the willows, flushed up to the Buckeye woodland on Blomquist's.

15 October

1315  $\geq 3$  birds here, flushing to the large VO at the Blomquist pond. 1 ub bird, also one that looked like ♂<sub>Yel/DP</sub> #402, but definitely ♂<sub>Wh-Da/Or</sub> #297 from 1500. Some chasing.

I climbed up to the storage area in the Valley Oak to check, and found some indication of acorns having been eaten in the storage limb (having been used as an anvil) but no sign of any real acorn storage as yet.

16 October

1505. 2 birds flushed from the area when I walked by. Why don't they store some?

1750. 1 bird sitting in the Willow granary.

25 October

900. Once again, there are at least 2 birds in the area. (There are birds here regularly - why don't they store?)

907.  $\geq 3$  birds now in area, inc. ♀ub.





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Melanerpes formicivorusPumpHastings Reservation

(25 October)

These birds are greeting one another, flying around, eating acorns, etc., just like they were a resident group (furthermore, most seem to be "unattached" birds, at least as far as I know). If only they'd start storing acorns here I'd feel more sure.

915. 2ub ♀♀ here now, both in the willow; 1-2 others as well.

917. ♂ or yel-De #297 on storage limb in the Valley Oak.

922. The 2ub ♀♀ and ♂297 greeting each other at the storage limb in the Valley Oak, then over in the willow. Possibly a 4th bird around also. Birds are flying to the Valley Oak over by the road to get acorns.

925. Somebody carrieking in the willow thicket.

930. Actually, these birds seem to meet most any criterion for a "group" that I can think of. Certainly they are living here for now (and ♂297 at least seems to be here regularly). They are clearly centered here and defending it from others. (Some intruders are here now getting chased). First they chased them from the trees by the pond, then they returned and grouped on the storage limb in the Valley Oak.

29 October

1425. At least 3 birds here, eating acorns in the Willow, among other things. ♂ub and ♀ub seen. These birds may very well be storing in the remaining bark in the Willow.

1428. 3 birds (1♂, 2♀, 1 maybe band) together in Willow, flew over to greet (?) a 4th bird in the Valley Oak.

1435. Something upset one of the birds - (karrit-cutting).

1440. Leaving. Still really looks as though there are birds really living here. You might try to band some more here.

30 October

1345. Birds here again. Put the net up.

1500. Had caught a bird, but somehow he escaped from the net as I





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Melanerpes formicivorus

Pump

Hastings Reservation

(30 October) tried to bring the net down. Rats.

6 November 920. 1 ub ♂ and 1 ub ♀ here as I came by. There are stores in the granary!!! Far out!

928. Momentary alarm as an Accipiter comes by.

There are 164 acorns stored in the Willow Granary! I didn't see any in the Valley Oak, however (but I didn't climb up, either).

1445. Net up. There are 15 or so acorns stored in the Valley Oak as well.

1700. Caught an unbanded ♀ - ♀429. She was held overnight.

From my notes, it would appear that the making of a group have been here as early as mid-July, but that real solid residency and exclusivity by these birds (i.e. banded birds from School Hill/1500 no longer seen regularly) did not seem to set in until late August or early September. Thus I will have the (presumably) 3 birds now living here as having moved here 1 September 1977 ~~Pomero~~ and as ♂622, ♀623 (→ now ♀429, j'espère) and ♀624. The actual membership here is only tentative pending some more watching and banding.

12 November 815. Net up.

1115. Caught a ♂ - #430. Not molting - could be 1st year??

Lots of stores here!!

1700. Caught another one - ♀432.

13 November 1100. Watching

1113. ① ♀ OR/OB #429 landed in granary.

1122. ② ♀ DA/LB #432 preening in willow next to granary.

1135. ③ ♂ WH? - probably #430 preening in live willow, then on telephone pole.

There could still be a 4th bird, but it looks as though all 3 of the birds



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Melanerpes formicivorusPumpHastings Reservation

(13 November) that I've caught here in the past 2 weeks do in fact live here.

1140. ♂ 430 seen better in granary.

1145. Looks good here. Those 3 birds may very well be it!

20 November

No birds seen but still plenty of stores in the Willow and only 1 or 2 in the Valley Oak.

27 November

1325. After sitting here a short time I got 2 of the 3: ① ♀ or DB #429 and ② ♀ M/DB-LB #432. Still looks like there are few if any stores in the Valley Oak.

No ♂ seen.

4 December

1500. 368 acorns counted in the Willow Granary. Still no sign of any stores in the Valley Oak (!)

12 December

1520. ♂ M/DB #430 sitting in the Willow next to the granary.

1535. ① ♂ ~~M/DB #430~~ <sup>♀ or M #429</sup> flushed from the Willow next to the granary to the large VO on the other side of Berta's pond, where ♀ M #432 was sitting. ♂ M/DB #430 then joined them there.

There seems also to maybe have been an intruder here.

1540. 2 birds now flying off towards MacRoberts (behind the knoll).

♀ 429 begged submissively when landing near ♀ 432, by the way.

19 December

The inevitable occurred - while on our way out to Christmas shop, we noticed that the entire Willow granary here was down on the ground! Unfortunately the storm we had 2 days ago was too much for it (it ~~terra~~ literally broke right at the roots). At least one bird flushed when we went to look, so my only hope now is to move some of the storage limbs up into the Valley Oak.

20 December

Put a fallen limb from MacRoberts (235 acorns) and a part of the willow (105 acorns) up in the Valley Oak next to the other limb.



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Melanerpes formicivorus

Pump

Hastings Reservation

(20 December)

One bird also was flushed today from the remains of the Willow, so hopefully the group is still around to take advantage of my busywork.

21 December

Put up 2 more <sup>pieces</sup> of the old willow (with 120 or so acorns) into the Valley Oak, which now has 5 old storage limbs in it.

25 December

It's not clear whether or not anyone ended up finding the new storage limbs and staying or not.

26 December

1300. ♂ sitting on storage limb in the Valley Oak.

1312. ♀ M/DB-LB #432 landed in the remains of the Willow. ♂ still sitting.

1315. ♀432 chased a scrub jay out of the willow about 3 ft. off the ground.

1320. This ♂ M/DB-Or #430 in the Valley Oak. 2/3 at least! leaving.





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Walter J. Koenig

1

Melanerpes formicivorus1500Hastings Reservation4 January

♀260 at 1800 acting as though she plans on staying. See 1800 notes.

6 January

1015. Lots of calling here. At least 4 birds in the vicinity.

① ♂<sup>LB/or</sup> #195 and ② ♂<sup>R-W-R</sup> #194 seen; also a ♀

1022. Suddenly a flurry of wings and karrit-cuts as some chasing took place in tree 1, apparently of an unbanded bird.

③ ♂<sup>Red/O</sup> #88 seen; the ♀ up in the lower sap side is④ ♀<sup>yel/BIR</sup> #176 from Hag-Blomquist! She had been sitting several minutes near one of the ♂♂.

1030. A ♀ just got chased from LSS.

1034. ♀<sup>wn/m</sup> #260 (presumably) landed next to ♂194 in LSS looking rather upset. There is still a fair amount of activity at 1800, though. (♀♀ seem to be in short supply around here these days).

1040. I bet this lady (♀260) is flying back and forth between the 2 groups at the moment. A ♀ keeps briefly appearing in the LSS and then flying off in 1800's direction again.

1050. It's beginning to get cold; also the action has come to a halt. These 2 groups should obviously be watched pretty closely for the next couple weeks, however, as changes are still taking place rather rapidly.

12 January

♀260 still at 1800. See 1800 notes.

17 January900. Counted stores: Tree 1: 689 }  
Tree 2: 388 } 1077

Later I snatched 40 or so acorns out of the granaries.

18 January1505. ♂<sup>LB/m</sup> #195 sitting in Lower Sap Side.27 January

1340. Watching from hide.

1410. ♂<sup>R-W-R/m</sup> #194 and ② ♂<sup>LB/or</sup> #195 in tree 4.

1430. Time to slip off. These 2 apparently the only ones here at the moment.



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2

Melanerpes formicivorus1500Hastings Reservation28 January1200. ♂ M/or #88 sitting in Lower Sap Side; a 2<sup>nd</sup> ♂ hawking in tree 3.

1230. Captive up in main tree with net.

1310. Back in hide. Both ♂♂ 194 and 195 in tree 1, interested in junior.

1312. ! ♀ 260 in tree 2 eating an acorn!

1315. These 3 birds (minus #88) are in tree 1 still; ♂ 194 especially interested in junior.

1325. All 3 ♂♂ (including #88) here now; all interested in the captive but no direct attacks yet.

1330. All 4 birds here now. Will merely wait to see if anyone gets into the net.

1400. Caught one! ♂ <sup>LB Blue/or</sup> <sub>LB Blue/M</sub> #195.3 FebruaryWith the nets up again, I caught ♂ <sup>Mauve/Mauve</sup> <sub>LPink/M</sub> #86 at 1515. This bird is supposed to still be at School Hill.

1545. ♂ RRL #295 and 2 other ♂♂ in Lower Sap Side.

5 February

1330. Caught ♂ 195 again in net. He was released forthwith after blackening his forehead again, which had faded considerably already.

9 February1100. While putting up the nets here I saw ♂ OrRW #307 just above me in tree 1; meanwhile WnRW #308 plus a 3<sup>rd</sup> bird were up in tree 3. Both these 2 are Lower Haystack first-year birds.

1600. Stuck up the captive.

1715. Success! Have caught ♂ 194, who was kept overnight.

22 February1445. Walked down here directly from watching at School Hill. In the top of tree 1 are 2 birds, ♂ Wn-DB/Green ~~#256~~ #256, who I'd just seen a while ago at School Hill (!) and ♀ MyRed #191, who I had not seen at School Hill, though both are S.H. birds.

1455. ♂ 194 in Lower Sap Side, where ♂ 256 is also at the moment.



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3

Melanerpes formicivorus1500Hastings Reservation

(22 February)

1500. Several (4) birds aggregated in tree 3, inc. ♂ RRL #195 and ♂ LB/LP #296 (1st yr bird from School Hill). There was a displacement here, but it was unclear as to who was displacing whom.

1507. ♂296 hawking from tree 3. (This bird had been seen on School Hill earlier today also).

1522. Now ♂194 and ♀191 are both in tree 3. - As well as a 2nd ♀: ♀ WH/DB (#260)! No chasing or aggression though.

1525. ♀191 and ♂194 left, (♀260) and ♂195 here now.

1530. ♂ Red/Yel #88 in tree 3 along with ♂256

1535. 3-4 birds just flew up and off toward School Hill, no doubt returning home.

The big question remains as to what this group will do for a ♀, as I still suspect that ♀260 has forsaken here for good.

1538. Still more to go: ♂195 and ♂ Or/Lght-DB #297 (1st yr School Hill bird) in tree 3.

1540. 2 more birds just headed off to School Hill. ♂♂194 and 195 now alone in tree 3. That's probably all for the excitement for now.

1545. It's not entirely over: ♂♂194 and 195 are now sharing tree 3 with ♂86 from School Hill. (possibly their father!)

5 March

1600-1630. Sat and watched but there were no birds at all here.

7 March

1115. Several birds here in tree 1: ① ♂ RRLW #195, ② ♂ Or/LBWH #191 (School Hill) plus a 2nd ♂ with no streamer.

1125. 2nd ♂ is ♂ LG-DB/Yel? #298 (the missed 1st yr. bird from School Hill). He is presently sitting in tree 1 eating oak buds.

There is at least some possibility that this was ♀193.

17 July  
Most probably was ♀193





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Melanerpes formicivorus1500Hastings Reservation

(7 March)

There are several other birds here also.

Stores here are effectively zero (!) [I could see 2 whole acorns in the main tree]. Evidently the "residency" of all the School Hill birds down here has wiped them out fast indeed. Which leads me to wonder, among other things, as to why banded birds in a new territory don't chase off their old group members?

18 March

1700. There are no birds anywhere here that I can detect. Has this group abandoned and returned to School Hill?

19 March

1200. There are now 3 birds at least here hawking; ① ♂ YLW #194 seen. A banded ♀ here also. ② ♂ RAW #195 here.

1215. The ♀, who is now in tree 2 and checked out the hole in tree 1 a few minutes ago, is unbanded as best as I can tell.

1220. ④ ♂ M/Yel #296 hawking in tree 1 (1<sup>st</sup>-yr School Hill bird)

1225. One of the ♂♂ is digging into an acorn over in tree 1 (either they still have a few stores or they've brought some down from School Hill).

1230. ⑤ ♂ M/Yel #88 here. ♀ in lower Sap Side.

Perhaps there is hope for the group yet. The ♂♂ are o.k. and even though they occasionally "disappear" from here I can see no reason to believe they're going back up to School Hill. Some School Hill birds are still coming down here, however, and perhaps the ♀ub is one of them. I tend to suspect not, however, and that she very possibly may stay for good.

20 March

Having heard lots of activity and calling (inc. garrick calls) I came over and began watching about 1150.





Melanerpes formicivorus1500Hastings Reservation

(20 March)

It was clear that a small-scale revolution (the first of the year!) was taking place, with a lot of chasing, etc., especially between trees 1 and 2. Having more or less expected something to take place as far as a ♀ replacement was concerned, I was gratified to find several ♀♀ here, chasing each other and getting chased. Before putting up nets, I quickly identified

(1-3) ♂♂ 88, 194, 195 (the 3 1500 birds)

(4) ♂ 298 (School Hill 1<sup>st</sup> year)

(5) ♀ Yel/Black #176 (2<sup>nd</sup>-yr from Hay-Blom)

(6) ♀ R-W-B/M #170 (2<sup>nd</sup>-yr from L. Hay)

(7-) ♀(♀) ub.

The 2 30-foot nets went up around 1230, and soon I had an unbanded ♀, now #348, followed by ♀176, a Red-breasted sapsucker, and a 2<sup>nd</sup> unbanded ♀, now #349. By this time it was 1400, things had calmed down, but I finally have time to watch.

1402. ♂195 and (9) get a remaining 3<sup>rd</sup> ♀ub in 20 tree. ♀ub flew to tree 1 and just missed the net.

1405. ♂♂194 and 195 both in tree 2 hawking.

1410. Things are relatively calm. There are several birds behind me over along the road.

1415. This may be a good chance to take a 20-30 min. break.

1500. Back(!) Two birds flushed from the area when I arrived, and one bird (a 3<sup>rd</sup> unbanded ♀, #350) is in the net; otherwise everything is very quiet.

1535. ♀350 released. Everything still quiet.



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Melanerpes formicivorus1500Hastings Reservation

(20 March)

1542. ♂195 just flew to tree 2 from over or by the creek.

1605. Still all quiet.

1710. All still dead quiet; nobody in nets. Watching again.

Take it back. Now going to take down nets.

Purge: ♀260

First seen at 1800 on 4 January, last seen here at 1500 or 28 January, ∴ Moved to Watched group abt 16 Jan ± 1 week. I must comment on the & unprecedented action here of an established ♀ leaving her group for apparently no clear reason to move next door. Very interesting.

21 March

1025. Watching. Several birds here but no undue fighting. ♂RRW #195 in Lower Sap Side.

1028. ② ♀DBRW #348 flew to tree 3.

1040. ♀348 now hawking in LSS. No chasing or other improper behavior. ③ ♂M, (presumably <sup>no</sup> #88) hawking in tree 1.1050. ③ ♂ <sup>LG-DG/LG-Y</sup> <sub>LG-DG/M</sub> #298 (School Hill(?) bird.)

1100. All seems pretty well settled, presumably with ♀348 staying. Obviously it will be a few days before I can say that for sure, however.

2 April

1710-1735. Nobody could be found here.

4 April

815. ① ♀348 hawking atop tree 1.

820. A bird getting chased; both ② ♂194 and ④ 195 here.

The intruder chased off by at least 2 birds. ④ ♂88 (M/Red) also here.

825. One intruder in lower sap side hawking is ③ ♂RRW #307 a first-year bird from Lower Haystack.

830 There are several too many birds here and several chases are taking place. At least 2-3 ♀♀ are among them.

I'm not convinced; see below.



Melanerpes formicivorus1500Hastings Reservation

(4 April)

It looks unfortunately possible that ♂195 has lost his streamer already. (Or he may not be here at all, see below).

835. There are still 5-6 birds here and some chasing going on.

837. ♂<sup>(3)(4)</sup>LB/LP #296 (School Hill 1st-year) ~~was~~ here in tree 3; not being chased, apparently.

845. ♂<sup>(3)(4)</sup>LG-DA/ ~~yellow~~ #298 (School Hill) also hawking up in tree 3 and not one of the chased birds (sitting freely next to ♂194 and sometimes ♀348).

850. ♀348 and ♂194 still being seen regularly. ♂296 still here.

902. ♂<sup>(8)(6)</sup>Or/Yel-DA #297 (the 3rd Sch. Hill 1st-yr bird) here also; when seen he looked furtive, however, and may have been chased.

906. ♂296 just chased a Scrub Jay out of tree 1.

910. ♂297, ♀348, ♂194, and a 4th bird together (peacefully) in tree 3. Who I don't keep seeing are ♂♂88 and 195. In fact, I now question whether I saw them at all in the first place.

915. ♂298 with ♂194 in tree 3. ♂296 in tree 1.

920. An ~~old~~<sup>(1)(2)</sup>ub ♀ got chased by ♀348 from tree 3, then out of the LSS.

930. Leaving. Things are obviously still quite confused and up in the air here. In any case, I do think that ♀348 should be considered a resident here now. Mainly, it seems to be ♀348, ♂194, the School Hill 1st-yr birds, and some miscellaneous intruders kicking around here.

12 April

1130. More "revolution" activity here this morning noted as I emptied insect traps. I am now here to watch. Chasing going on now in LSS.





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Melanerpes formicivorus

1500

Hastings Reservation

(12 April)

1138. ① ♀ DBRW #348 here, several others.

1140. ② ♀ WHRW <sup>no mark. M /</sup> ~~#326~~ <sup>(326)</sup> here. ③ ♂ YellW #194.

Neither ① nor ② are being chased, apparently. Action is intermittent.

1200. Note: ② could be one of several birds...

1210. ② ♀ WHRW <sup>no mark. M /</sup> Yel/Red-? apparently #326, one of the P.O. Hill birds! In any case, she is doing lots of Garrick displaying. That's it!

1217. Chasing continues at one every several minutes. ♀♀ 348 and 326 almost seen in this together and are often with each other.

1222. There seem to be about 5 birds here seriously.

1230. An OrLW was just getting chased: either ♂ 334 or ♀ 349, certainly much more likely the latter.

1237. A <sup>④</sup> ♀ ub here also, not in the main pack

1247. <sup>⑤</sup> ♀ OrLW <sup>LP</sup> ~~LP~~ <sup>LP</sup> #349, back being chased again.

1247. The 2 ♀♀ are still here constantly. There is at least a 2<sup>nd</sup> ♂ here. ♀ 326 is subordinate to ♀ 348.

1256. A 2<sup>nd</sup> ♂, ♂ LB/Light? <sup>maybe</sup> is ~~probably~~ <sup>or perhaps more likely</sup> #195 sans wing strmr. <sup>more likely</sup> ♂ 296.

1258. ♀ 349 back getting chased.

1305. Also here: ⑥ ♂ Or/Yel-Da #297, meaning the above bird was almost surely ⑦ ♂ LB/LP #296, both 1<sup>st</sup>-yr. birds from School Hill.

1312. ♀ 349 in tree 3 Garrick ing; finally being chased.

1325. Activity occasionally shifts across the creek.

1330. ♂ <sup>M/W</sup> ~~LP~~ #296 just returned to tree 1 alone with another!

1333. ♀ ub Garrick ing alone in tree 3.



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Melanerpes formicivorus1500Hastings Reservation

(12 April)

1337. ♀ub and ♀OrLW#349 now in tree 1.

1340. Leaving. Apparently the ♀ position is not clearly taken by #348 yet. As for the ♂♂, I saw no trace of #88 and 195, and even though I didn't get great looks at males, I'm fairly concerned that they may indeed be gone. I should return later with the hide.

15 April

1030. Still a fair amount of activity here.

1031. ① ♀WRW#326 here still. [♀ see/ret-] Hawking.

1035. ② ♂<sup>Red/Yel</sup><sub>M/</sub>#88 and ③ ♀DBRW#348. ♂#88 would seem

pretty certain; there are no School Hill birds near that combination.

1040. Nobody seems to be being chased here, but there's still a lot of greeting.

1045. ④ ♂YLW#194 hawking in tree 1.

1105. ⑤ ♂<sup>LG-DG</sup><sub>LG-DG/M</sub>#298 from School Hill here again poking around unmolested in the granary.

1107. ♀~~348~~ 348 at the roost hole - some interest being shown here.

1115. Leaving. Things are fairly quiet here, if not entirely settled. My guess is that ♀♀348 and 326 may very well be here for good.

20 April

See Y notes for 1500/School Hill birds there.

23 April

1015. There are several birds here, despite the fact that 3-4 of the birds that had been hanging out over here are still at Y.

1025. 2 ♂♂ (plus a 3<sup>rd</sup> bird briefly) atop ~~Tree 3~~ Tree 3, inc ① ♂LB/LP#296

1030. 1 of these birds just flew up and out over toward the knoll.

1045. ♀DBRW#348 up here also.



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Melanerpes formicivorus1500Hastings Reservation~~25 April 1930. While emptying the Malaise Trap here, one bird flushed out of the hole in the tree 1 and at least a 2<sup>nd</sup> was inside looking out at me.~~

25 April 1930. While emptying the Malaise Trap here, one bird flushed out of the hole in the tree 1 and at least a 2<sup>nd</sup> was inside looking out at me.

27 April 920. A bird preening in LSS is ♂<sub>LB</sub>blue/whorm; certainly looked like #195, but I couldn't see his R leg to tell him for sure from #296.

930. ♀DBRW#348 here in LSS.

1000. Leaving. Things are blissfully slow here, in any case.

4 May 1100. ≥2 birds here: a ♂ and ♀DBRW#348 seen in tree 3. I'm almost ready to entertain the notion that these birds may attempt to breed.

5 May 2015. Scared 1-2 birds out of the hole in the tree 1. It may be about time to figure out who lives here and who doesn't, and what the story is on the School Hill 1<sup>st</sup>-year birds.

9 May 1515-1525. 1 bird seen briefly across the road by tree 5; otherwise nobody here.

14 May 1635. 1 ♂ here up in tree 3, not looking especially settled. Nobody else seen at all. After briefly entertaining the notion of a nest here (see 4 May) I'm now entertaining the notion that there's no longer even a group here.

16 May 1245. Watching

1300. ♂<sub>LB</sub><sup>M/LP</sup>#296 in tree 3.

1315. ♂296 finally flew off. Nobody else here. Going to walk around briefly.

1325. Now ♀DBRW#348 and a ♂ in tree 3.

1332. 3 birds here now, ♀348 and 2 ♂♂, inc. ♂<sub>M/O</sub>-#88.





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Melanerpes formicivorus1500Hastings Reservation(16 May)

1340. Leaving. None of this solves the ultimate question of who lives here (i.e. which ♂♂?) [much less what has happened to those who are no longer here] but there at least does seem to be a group here, composed of ♀348, ♂88, and apparently ♂296. As for ♂♂194, 195, 297, and 298, they are perhaps still messing around with ♀326 over toward Y. (?)

20 May

1420. 2 birds in tree 3 flushing across the creek: ♀348 and a ♂.  
~~Clearly~~ Clearly ♀348 has moved in "for good."

2 June

♀348 seen briefly over at 1800.

13 June

2030. 2 birds flushed from tree 1 as I emptied the Malaise trap just before dusk.

15 June

1315-1345. Nothing hanging around here (the birds are presumably at 1800, where I saw ♀348 a little while ago).

16 June

1910. ♂<sup>M</sup>/LP #296 and ♀DBRW #348 in Lower Sap Side. I heard 1-2 other birds here as well (surely the other 2 first-yr ♂♂?).

24 June

805. ♂LB/scel #296 hawking in Lower Sap Side. (I'm moving to 1800)

850. ♀DBRW #348 in lower sap side (seen from 1800).

8 July

815. Several birds (4?) here. ♀ub alone at the top edge forest by the fence (intruding?)

825. In Upper Sap Side: ♂<sup>4L-DG</sup>/Or #297 and ♂<sup>LG-DG</sup>/<sup>LG-4L</sup> #298. Also a 3<sup>rd</sup> bird with them.

17 July

910. Watching. ♂♂297, 298 already seen over at Pump.

912. ♀<sup>M</sup>/Or-? #348 just landed in Lower Sap Side.

940. ♂<sup>Wh-DG</sup>/Or #297 in tree 3 now; 3<sup>rd</sup> bird went to LSS.

1000. Birds have pretty well disappeared.

1015. A winner: ♂<sup>M</sup>/LP #296 in Lower Sap Side! Just the man I wanted to see. Now I can start reorganizing things—





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Melanerpes formicivorus1500Hastings Reservation

(17 July)

It is now finally time to attempt sorting out who's where and what's what with this group and the School Hill birds. Those involved, one way or another, along with when and where seen in 1977 are as follows (see back of sheet)

Clearly the situation for many of these birds is not as simple as I'm forced to make it by cramming their "origins" and "fates" in a single unambiguous classification. But here it goes anyway:

♂88. Formerly moved to 1500 in August 1976. Muddled around 3-1500 area following the 4 revolution on 20 April. Last seen at 1500 on 16 May, seen consistently at School Hill since 18 May. (Not seen at School Hill on 25 April)

Moved-Watched group → 17 May ~~1976~~ 1977

Moved as adult to School Hill → 17 May 1977.

♂194. Solidly at 1500 up to 15 April. Gone by the end of the month for sure. → Disappeared about 23 April ± 1 week.

♂195. Solidly at 1500 up to 21 March; doubtful after that. Should have been clearly seen on 4 April → Disappeared about 28 March 1977 ± 1 week.

♀348. Appeared during or just prior to the 20 March revolution at 1500; present continuously since then (feathers make it a quite probable adult) → Moved as Adult to 1500 20 March 1977.

♀349. Appeared during or just prior to 20 March revolution at 1500. Seen there on 12 April; not seen since. → Ring-revolution [Ad] ~~1976~~ 20 March; Not seen here after 12 April.

♂296. A definite problem, as are the other 2 babies. Seen at 1500 as early as 1 Sept. 1976, when he was

(not complete) a few in-between observations missing.

♂88	♂194	♂195	♀348	♀349	♂296	♂297	♂298	♀326	(Hay-Blm)	(S.H.)	(S.H.)	(S.H.)
1/6 (1500)	1/6 (1500)	1/6 (1500)		♀349	♂296	♂297	♂298	♀326	♀176	♂86	♂256	♀193
1/28 (")	1/28 (")	1/28 (")			9/1 (1500)	9/27 (S.H.)	9/11 (1500)		2/22 (S.H. and)	2/22 (1500)	2/22 (1500)	2/22 (1500)
2/22 (")	2/22 (")	2/22 (")			10/12 (S.H.)	10/12 (S.H.)	10/12 (S.H.)		3/7 (")	3/7 (")	3/7 (")	3/7 (")
3/19 (1500)	3/19 (")	3/19 (")			3/18 (S.H.)	3/19 (1500)	3/7 (1500)		3/18 (S.H.)			
3/20 (1500)	3/20 (")	3/20 (")	3/20 (caught)	3/20 (caught)	3/19 (1500)							
4/15 (1500)	4/15 (")	4/15 (")	4/15 (")	4/15 (")	4/12 (")	4/12 (")	4/12 (")	4/12 (1500)	4/14 (S.H.)			
4/20 (")	4/20 (")	4/20 (")	4/20 (")	4/20 (")	4/21 (")	4/21 (")	4/21 (")	4/21 (")				
5/16 (1500)	5/16 (1500)	5/16 (1500)	5/16 (1500)	5/16 (1500)	5/18 (S.H.)	5/18 (S.H.)	5/18 (S.H.)	5/18 (S.H.)				
5/18 (S.H.)	5/18 (S.H.)	5/18 (S.H.)	5/18 (S.H.)	5/18 (S.H.)	5/22 (S.H.)	5/22 (S.H.)	5/22 (S.H.)	5/22 (S.H.)				
5/28 (S.H.)	5/28 (S.H.)	5/28 (S.H.)	5/28 (S.H.)	5/28 (S.H.)	5/27 (")	5/27 (")	5/27 (")	5/27 (")				
6/2 (1800)	6/2 (1800)	6/2 (1800)	6/2 (1800)	6/2 (1800)	6/2 (1800)	6/2 (1800)	6/2 (1800)	6/2 (1800)				
6/15 (1800)	6/15 (1800)	6/15 (1800)	6/15 (1800)	6/15 (1800)	6/16 (1500)	6/16 (1500)	6/16 (1500)	6/16 (1500)				
6/16 (1500)	6/16 (1500)	6/16 (1500)	6/16 (1500)	6/16 (1500)	6/24 (")	6/24 (")	6/24 (")	6/24 (")				
6/24 (")	6/24 (")	6/24 (")	6/24 (")	6/24 (")	7/8 (1500)	7/8 (1500)	7/8 (1500)	7/8 (1500)				
7/17 (1500)	7/17 (1500)	7/17 (1500)	7/17 (1500)	7/17 (1500)	7/17 (1500)	7/17 (1500)	7/17 (1500)	7/17 (1500)				
7/19 (S.H.)	7/19 (S.H.)	7/19 (S.H.)	7/19 (S.H.)	7/19 (S.H.)	7/19 (S.H.)	7/19 (S.H.)	7/19 (S.H.)	7/19 (S.H.)				
7/10 (")	7/10 (")	7/10 (")	7/10 (")	7/10 (")	7/11 (")	7/11 (")	7/11 (")	7/11 (")				

Melanerpes formicivorus1500Hastings Reservation

(17 July) presumably "following" the older School Hill birds who had previously moved there. Seen at both School Hill and 1500 on several dates between 12 Oct. 1976 and 18 March 77, when he was last seen at School Hill. Was at 1500 prior to and following the 20 March revolution, then lived over at Y for 2-3 weeks following the 20 April revolution there. Returned to 1500 between 9-16 May, and has been there consistently since except for fuddling around at the near end of 1800 during the revolution there. ~~Most~~ Most conservative route is perhaps → Moved - watched group about 19 March 1977; Moved as Juv. to 1500 19 March. Obviously this bird could be considered a resident here as early as late December; ~~but~~ he was certainly transitional for a long time. Also, whether or not he really "belonged" to 1500 in March-April (or ~~even~~ even December-Jan.) is an unanswerable query. I think the above solution is a fair compromise: he was never seen at School Hill after 18 March so ~~must~~ <sup>must</sup> objectively be moved at least by then; his persistent presence at 1500 ~~after~~ after and even before then makes it reasonable to move him there directly. The episode at Y was clearly a side issue and doesn't warrant special consideration other than noting his participation.

♂297. The history of this bird is not so different from ♂296, except that he fed the babies at School Hill on 18 May and was there again on 22 May, whereas ♂296 never returned during the breeding season at all as far as I could tell. Obviously this bird was at 1500 or Y more than at School Hill up to mid May and as early as 22 Feb, but at least by 4 April.

(not complete & a few in-between observations missing).



Melanerpes formicivorus1500Hastings Reservation

(17 July) Nonetheless, his effort, however minor, at the School Hill nest in May makes it reasonable to keep him there through that time.  
 → Moved to watched group ~~at School Hill~~ ~~28 May~~. 28 May.  
 Moved to 1500 28 May 1977.

♂<sup>298</sup>. Very similar to ♂<sup>297</sup>; clearly living at 1500 in March and April, at Y in late April early May, but back up at School Hill on 22 and 27 May (though not seen feeding at the nest.) Back with 1500 on 2 June (at the 1800 revolution) and there since. → Moved to Watched group ~~28 May~~<sup>30</sup>; Moved to 1500 ~~30 May~~<sup>30</sup> 1977.

♀<sup>326</sup>. A Poison Oak Hill bird, who appeared at 1500 on 12 April, then moved over to the knoll at Y following the revolution there on 20 April, where she was last seen on 9 May. → ~~Seen wandering near~~ Seen-revolution at 1500 on 12 April; not seen here after 15 April. Seen-revolution at Y on 20 April; not seen here after 9 May 1977.

♀<sup>176</sup>. Still at Hay-Blom despite some explorations here

♂<sup>86</sup> 256. Still at School Hill despite some explorations here

♀<sup>191</sup>. Moved to School Hill West, but things didn't work out there, and she came down for the 2 June revolution at 1800 (where she was suspiciously friendly with ♀<sup>260</sup>), was seen there still on 5 June, then was at School Hill again in July, whereas she had not been there during the time they were feeding young in May. ~~at School Hill~~ Tentatively → Moved to watched group 15 June 1977 (random date in June); Moved to School Hill 15 June 1977. Obviously I don't know for sure when she left S. Hill West, however.





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Melanerpes formicivorus

1500

Hastings Reservation

(17 July)

♀193. Also a School Hill West convert who came down to 1800 during the revolution but did not return to School Hill with ♀191, and is thus presumably back at School Hill West. I ought to go check for sure, however.

18 July

840. Several ♂♂ here along with ♀348.

29 July

♂296 in Nest tree at 1800. See 1800 notes.

31 August

1220. ♀DBRW #348 with an acorn in tree 1. Other birds in the vicinity.

2 September

Several of the birds (♀348, ♂♂296, 298) seen over in the nest tree at 1800, which apparently is now (still) part of 1500's territory!

1230. Seen in tree 1 on the way back were 4 birds, inc. ♂296, and a poor look at who was most likely ♂297 (♂ or -)

15 October

1310. ♂<sup>LG-De/LG-Y</sup> #298 in Tree 1, along with lots of new acorns.

1320. ♂297 seen at Pump (see Pump notes).

6 November

1555. Here briefly. ♂DBRW #348 in tree 3.

1558 ♂<sup>Red/DBRW</sup> #88 (!) in tree 3. With the ♀. He's certainly one of the more indecisive birds on the reservation!

1602. ♂<sup>LG-De/M</sup> #298 preening in tree 1.

1605. ♂<sup>M/LD</sup> #296 in tree 2.

1610. Leaving. All fine; ♂88 probably living here [again]; others seem to be as before. Storing has been good here.

19 November

1250. 4 birds here. ♂<sup>LG-De/M</sup> #298. Nobody else's bands seen.

20 November

1025. ♀348 seen in Lower Sap Side. ♂<sup>or/LG-De</sup> #297 there now also.

1032. ♂<sup>M/LD</sup> #88 in tree 4 now with (other ♂).

1045. Intruder chased briefly by ♂<sup>LG-De</sup> #298 in tree 1.

26 November

Add: ♂88 - moved here 19 August ± 1 week. See School Hill notes.



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Melanerpes formicivorus

1500

Hastings Reservation

4 December

1600. 5 birds here: 3 flushed from tree 2 to tree 3 (inc. ♂ 16-06/M #298); 1 in tree 1, and a 5th in the lower sap side. Others couldn't be identified.

13 December

1300. Counted stores: Tree 1: 2382 } 3302  
Tree 2: 920 }

These birds are doing quite well indeed!



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Melanerpes formicivorus

1800

Hastings Reservation

4 January

1025. Lots of noise up here; at least 4 birds in main tree when I arrived to watch. Some chasing also. ① ♀<sub>m/red</sub> #191 (School Hill) here.

1037. Possibly ② ♀<sub>wh/DB</sub> #260 here! (?) Yes!

1043. ③ ♂<sub>LB/wh</sub> #43.

1048. ④ ♀<sub>m/Lpink</sub> #193 (School Hill).

♂43 complacently eating an acorn at the moment.

1055. Somebody is still getting displaced right and left. Apparently it is ♀193 (DB-LP/DB) who is also giving begging calls constantly.

1058. One bird just took off directly for 1500 (♀260?)

1059. ♀260 still here, and is in fact the bird so vigorously displacing ♀193, who continues to display submissively.

1104. ♀260 also waka displaying conspicuously to #43, obviously trying to impress him.

1106. Hard to tell how many birds are here, but 4 seems possibly low.

1113. Looks like these are the only 4 birds here at the moment.

Brief comments: 1) It's interesting that ♀260 seems to be differentially chasing ♀193 and not ♀191.

2) Why is ♀260 here in the first place? Who is at 1500?

3) ♀166 is most likely gone, as expected would happen sooner or later but before the breeding season.

4) It will be neat indeed if the School Hill ♀♀ move in here after the ♂♂ have just recently settled at 1500.

1118. ♀260 continues to harass ♀193, while at least on one occasion landing peacefully next to ♀191 and pretty much leaving her out of it entirely. ♂43 ignoring it all, but is frequently displayed to, as expected.



1977

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Melanerpes formicivorus1900Hastings Reservation6 January

1315. Nobody here.

1330. Some calling now. ♂ LB, #43 in main tree eating an acorn.

1335. ♀ peacefully in main tree - ♀ wh/Dark (#166?).

1337. (2) ♀ M/Red #191 landed in nest tree, causing ♂43 to fly over there and another bird (I think) to ~~was~~ karrit-cut violently.

1340. ♀191 now preening in main tree; at least one other ♀ here.

1343 Displacement at top of main tree involving ♀191 and 2nd ♀.

1345. (3) ♀ wh/DB blue #260 here after all (!) She obviously is playing both sides of the knoll here.

That seems to be about it. I don't see ♀193 here today.

12 January

1320. Watching. 1 ♀ in main tree.

1328. ♂ LB/wh #43 in main tree. The ♀ appears to be ♀ wh/DB #260, and seems to be the only one here at the moment.

1350. (2) ♀260. Still no other ♀♀.

1355. It would appear that these are the only 2 birds hanging out down here ♀ at the moment. (!)

17 January930. Counted stores: Nest tree: 30 }  
Main tree 269 } 299

3 birds responded when the ♂ began karrit-cutting at my presence below the main tree; among the 4, one ~~was~~ immediately tried to displace one of the others, much as was happening among [the same?] 4 birds here on 6 January. Also, at one point I watched a bird fly from the main tree here directly to tree 1 at 1500 [presumably ♀260.] Obviously things are still not completely sorted out here as yet.

18 January

Took 30 acorns from the main tree, replacing them with some good Valley Oak acorns.





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Melanerpes formicivorus

1800

Hastings Reservation

28 January

1230 ① ♀ M/Red #191 and a ♂ in Main tree.

1240 ② ♀ Wn/M #280, some chasing going on still.

1245 ③ ♂ LB/Wn #43 hawking in main tree.

1300. Birds still hawking in main tree. No 4th bird that I can see. I am definitely beginning to wonder about ♀260's plans!

9 February

1210. Watching.

1235 ① ♀ Wn/DB #260 flew into main tree and began eating an acorn.

1238 ② ♂ LB/Wn #43 working stores low in main tree.

1300. No other action here. (♂43 still here hawking).

Looks like the School Hill ♀♀ have given up.

→ Purge: ♀166. Last seen 12 December. Gone by 4 January.  
Disappeared about 24 December 1976 ± 1 week

17 February

1630. Watching. ① ♂ LB/Wn #43 in main tree.

1645. A 2nd bird was here briefly; now only ♂43 remains, still sitting in the main tree.

1700. Leaving. I can certainly do better than this in the morning.

1708. Here she is: ② ♀ Wn/M #260. It has nearly come to the point where I almost have to conclude that she's moved here, but then, what about 1500? The School Hill ♀♀, in any case, have apparently given up the attempt to move here, at least for the time being.

7 March

1200. 2 birds (presumably ♂43/♀260) are busy sapsucking in a Live Oak up on the side of Haystack past the main storage tree.

Counted stores: Main tree: 304

Nest tree: 126

Total: 430



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Walter D. Koenig

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Melanerpes formicivorus1800Hastings Reservation20 MarchAdd: ♀260, Moved to 1800 as adult on 16 Jan  $\pm$  1 week.

(see 1500 notes, 20 March, p. 6, for details).

4 April940. 2 birds hawking in main tree: ① ♀<sup>wh/m</sup> #260 and ② ♂<sup>ls/wh</sup> #44. Things seem pretty calm here; all the action is clearly over at 1500.

950. Leaving.

1600. Birds up in sap area.

Counted stores: Nest tree: 93 }  
Main tree: 275 } 36823 April1100. ♀ in Maintree; 2<sup>nd</sup> bird (presumed ♂) flushed from the hole area of the nest tree as I approached; I presume a nest is being started there.27 April

915. Bird flushed (apparently out of one of the holes again) from the nest tree as I approached.

1000. ♂ in the '76 nest hole (or perhaps one just below it?)

30 April

Bird seen in '76 nest hole twice today - they certainly have things started here.

4 May

1110. No one in hole, but I'd just heard some greeting and a noise like an intruder getting chased.

1500. Went up to the hole, where a bird had flushed. Unexpectedly, I was confronted with the rasps of very young nestlings from the hole! (I didn't open the hole due to the problems attending the wood of this hole, but there were certainly  $\geq 2$ , in any case).9 May1530. Watched as the ♂ landed in the nest tree, then popped into the nest, coming out only when I walked over  $\approx$  10 minutes later. Standing below the tree I couldn't hear any



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Melanerpes formicivorus

1800 Nest Record

23 April 1100.

4 May 1500.

Hastings Reservation

Bird first seen in nest area

Went up to the hole only to hear  
rasps of very young nestlings.

The hole was not opened.

12 May 1130

No sound from hole.

[Day 0]





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Melanerpes formicivorus

1800

Hastings Reservation

(9 May) rasping or noises from the hole, but it's pretty far up and I certainly could have missed them. In any case, it would appear either as though the nest here isn't ~~a~~ yet a total loss, despite the wretched weather we've had ~~in~~ ever since these poor babies hatched, or that it was indeed a loss and they've already begun again.

1545. ♂ went back in hole, ♀ on top of <sup>nest</sup> ~~same~~ tree. My guess is that the nest is indeed still going. As soon as we have a decent day I'll go up and check for sure.

12 May 1130. Went up to the hole, evoking no response and hearing no sign of life. It was apparently a valiant effort on their part, but the weather, which had not improved on the 10<sup>th</sup>-11<sup>th</sup> of May, seems to finally have done them in. I did go around and count stores:

Nest tree: 28 }  
Main tree: 220 } 248

14 May

1630. Nobody seen here in a brief pass.

16 May

1245-1315. Nothing at all here going on.

20 May

1345. Watching.

1352. 2 birds heard in Main Tree; ♂ seen.

1358. There is an ad♀ checking out the holes in the nest tree (i.e. dipping into them).

1400. The ♀ is on the storage limb in the nest tree. ♂ LB/WH #43 is on its top. ♂43 dipped into the 2 nest holes also. ♀ub hiding on the underside of the limb; it's possible he doesn't know for sure she's there.

1407. ♂ finally dropped down in tree, saw ♀, then went up, karrit-cut 2 times, then as ♂ ♀ WH/DB #260 flew over the ♀ intruder flew off.

1415. Leaving. 2 residents o.k., but no new nest yet.



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Melanerpes formicivorus1800Hastings Reservation,

(20 May)

1418. A pair of Ash-throated Flycatchers are interested in the nest hole (the one that was just being used); one of them is going inside and checking it out.

2 June

1310. Watching. Something going on here - there's too much activity for a group of 2.

1315. In fact, there are  $\hat{=}$  6 birds here. ① ♀ ub seen, in nest tree. She drummed once, and is probing into storage holes.

1320. Not only is there a fair amount of activity here, but there is a bird looking out of the '74 nest hole over on the side of School Hill!

1325. There are now 3 birds together on top of the old granary on the knoll toward the gate, while at least 1 ♂ is still in the main tree here.

1328. Sort of as I suspected, the 1500 birds (as it were) have some part in this: ② ♀ DBRW #348 was here in the nest tree briefly.

1332. ③ ♂ <sup>M/LP</sup> <sub>LB/LP</sub> #296 here, and ④ <sup>LG-DG/LG-Y</sup> <sub>LG-DG/M</sub> #298, as well as ⑤ ♂ Or/light-DG #297 (all 3 together in the nest tree here).

There is not any chasing going on that I've seen so far, only a fair amount of wakas and 1 or 2 Garricks.

1340. There is somewhat more Garricking, etc., over in the forest next to the main tree.

1343. A ⑥ ♂ OrLW [334?] in Main Tree. That looks interesting. (Only other possibility I see offhand is a missexed ♀349)

1405. ⑦ ♀ <sup>Wh/DB</sup> #260 here in Main tree with several others, still no chases; another ♀ next to her (ub?) grabbed some food out of her bill! Also it is ⑥ ♂ OrLW <sup>LG+M</sup> #334 here for sure!

Birds are acting very much like this is the latter



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Melanerpes formicivorus

1800

Hastings Reservation,

(2 June) phase of a larger more vicious revolution which I missed entirely. Right now, ♂334, a 2<sup>nd</sup> ♂, and a ♀<sup>260</sup> are sitting quietly in the main tree. Looks like if anyone's getting replaced, it's dear old ♂43.

1425. ♂<sup>DB-LP/DB</sup> ♀<sup>M/LP</sup> #193 here, ~~is~~ is begging profusely (acting submissive), was still displaced once by ♀260 (but yet is not getting really chased).

~~1430~~ 1430. ♀260 and ♂334 in Main tree now. The School Hill 1<sup>st</sup>-yr birds are apparently sticking pretty much to the other side of the territory. There are several other birds in the forest behind me, though.

1455. ♂<sup>M/Res</sup> ♀ #191 here also; still no real chasing even by ♀260. ♂<sup>(ub?)</sup> tailless.

1500. Another bonus bird: ♂<sup>LP-DB/LP</sup> ♀<sup>M/LP-DB</sup> #347 (also from Poison Oak Hill!).

1510. Leaving. My tentative conclusions:

① ♂43 should have been seen if he were here, but wasn't.

② ♀260 wasn't really chasing anybody, but there really were only 2 ♀♀ here at all consistently (♀♀191, 193); they were displaced now and again and did give lots of submissive calls. ♀260 was probably more interested in the ♂♂, whom she greeted with typical alacrity.

③ The 1500/School Hill crowd (<sup>348</sup> ~~♀248~~, ♂♂296, 297, 298) were definitely only peripherally involved at best, by this point.

④ ♂334 was present the most in the main tree, followed by ♂♂ (tailless) and ♂347. ♂43 is most likely to be replaced by one or a combination of the above.





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Melanerpes formicivorus1800Hastings Reservation

(2 June)

⑤ This group does have stores left, which I am now going to count: Main Tree: 206

Nest Tree: 0

⑥ I surely saw most/all of the <sup>current</sup> 1<sup>o</sup> participants in this unfolding dramatic production.

5 June

1915. Back again. I've heard some activity here indicative of the continuance of the former activity, but it is rather late so I'm not sure whether or not to expect much now.

1925. 4 birds appeared briefly: ① ♂ 334, ② ♀ w/m #260, ③ ♀ DB-LP/DB #193, and ④ ♀ M/Red #191. No antagonism was seen between anybody, but one of the 2 ♀♀ 191/193 was still squeezing a lot (submissively).

1930. Several birds now meeting down in the trees by the creek.

Going down, I see ④ ♂ <sup>light-DB/white?</sup> most likely #347, and ♀ 193.

Obviously things are still going strong here, and I should watch earlier in the day soon.

1940. Activity is shifting even further up: ≥ 2 birds sitting on the '74 nest tree now!

8 June

1130. Activity in both major areas here; at least 2 birds flushed from the nest tree as I approached, one of whom was ♂ LG-DB/M #298. Now watching the main tree

1200. Nobody returned to the main tree. Things rather subdued, though there's still more activity than usual. Apparently, though, the membership here is now pretty well settled.

14 June

1100. A bird in tree 4 at 1500 flushed as I walked underneath to the nest tree here; was ♂ LG-DB/M #298. Also a 2<sup>nd</sup> bird here; plus one calling across the field. But still rather quiet.

1103 ♀ in old tree across the field.





Melanerpes formicivorus1800Hastings Reservation(14 June)

1112. Bird hawking from '74 nest tree up on side of School Hill.

1123. ♂ OrLW# 334 in Main tree.

1128. ♂ 334 eating acorn in storage limb; joined by ♀ Wn# 260.

1132. ♀ flew off to greet a 3<sup>rd</sup> bird (apparently), while ♂ 334 is working stores in the storage limb.

Apparently the School Hill 1<sup>st</sup>-yr birds are just up from the nest tree and in the half of the territory by 1500 - have they effectively split this place? (I've only seen ♂ 298 today, but heard ~3 birds up there).

15 June

1200. In hide. ♀ DBRW# 348 sitting atop nest tree. Otherwise no sounds at the moment.

1215. ♂ Wn/DB# 260 to Main tree from forest next door.

1220. Joined by ♂ OrLW# 334.

1230. The third bird found: ♂ preening casually in main tree; as expected: ♂ M/LP-DB# 347.

There's still some miscellaneous action on the outskirts of this territory (some Carricking, etc.), plus the confusion generated by the "1500" birds being over here, but I feel confident about claiming the 1800 group as presently containing ♀ 260 and the 2 ♂♂, who have replaced dear old ♂ 43. ~~Wn# 260~~

1250. ♂ 334 checking stores in the storage limb; ♀ nearby. 3<sup>rd</sup> bird heard calling in forest. No sign of anybody in/near nest tree.

1300. That will do for now.

16 June

Purge: ♂ 43. Last seen 20 May 1977, following their nest failure. Gone by 2 June, when the revolution was noted

→ Disappeared about 31 May 1977

Add ♂♂ 334 and 347, moved to 1800 as Adults 31 May.



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Melanerpes formicivorus

1800

Hastings Reservation

24 June

815 ♂♂ or LW #334 hawking in Main tree.

825. 2<sup>nd</sup> ♂<sup>LP-DB/LP</sup> M / #347 ~~am~~ here in main tree, greeted cordially by ♀ Wn / #260. Then some strange calling near the creek prompted everyone to fly off. There's no obvious action near the nest tree.

828. In main tree: ♀ M / LP #193 (the "SHill West" bird) <sup>looking a bit</sup> furtive.

830. Some Garricking back in the forest behind the Main tree. ♂334 up in Main tree now.

840. Both ♂♂ hawking in Main tree; neither ♀ there.

843. ♀193 now preening pretty casually in Main tree. Perhaps ♀260 isn't here after all?

855. ♀193 still here.

910. There are 1 or more birds down by the creek now.

916. ♀ Wn / M #260 pretty much definitely in Main tree now. ♂334 too.

As before, she doesn't seem to be being chased away, even by ♀260

920. Things seem settled here except for ♀193 (I have no idea what's up with her yet); there also may be some intruders in the area still (in the old tree, by the creek, etc.) but they do not seem to be coming up to the main area (except for ♀193). The 1500 gang is apparently no longer occupying the nest area.

4 July

1245. Flushed a ♀ out of the main tree while counting stores, which amounted to 52. Also of note: the entire <sup>nest</sup> limb of the tree with the 1974 nest hole on it has fallen, clearly within the last couple weeks. I walked up and examined it, and found the hole intact; thus it would be a likely candidate to collect.

23 July

1020. ♂334 seen way up near S Hill "B". See School Hill notes.

29 July

1910. Watching. ♀ Wn / DR #260 in Main tree.

1915. ♂ M / LP #296 preening unmolested in nest tree!



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Melanerpes formicivorus

1800

Hastings Reservation

(29 July)

1918. ♀ gone; ♂ just flew up toward 1500. Possibly the 1800 birds have just never "reclaimed" this part of their territory as yet.

21 August

2010. 4+ birds in the old tree (toward Gate on the side of Haystack) greeting each other tonight. Could just be fall wandering, but something may have happened here recently.

2 September

1130. Watching. ① ♂<sub>ub</sub> (!) with 2 green acorns in main tree. Banded ♀ there also.

1135. ② ♀<sup>wn/DB</sup> #260 eating acorn. Good to see that she's still here.

1137. Several birds calling down by the creek at the moment.

1215. Wow. Some activities. An intruder in the main tree brought several birds to chase it away; there are now 4 sitting together in the top of that tree! Then, several birds flew into the nest tree from the 1500 side, including ♀<sup>DB</sup> #348, ♂<sup>LB/LP</sup> #296, and ♂<sup>LB-DB, M</sup> #298, who stayed there by themselves for a few minutes (with a green acorn or two) and then flew back over to 1500. It would seem that this side of the territory still is actually "owned" by 1500! (This might in part explain why these (1800) birds have been over on the Haystack side of their territory more than usual in the last several months.

1230. Leaving. Some closer investigating and possibly some netting is going to have to be done here. The ♂♂, it would appear, have undergone a complete replacement.

1515. Net up in Maintree with Captive ♂ as bait. Watching.

1715. Totally useless. No sign of any birds ever showed up in the area at all. Oh well.

No stores remain here (in the main tree) by the way.

4 September

1230. Trying again here with net up and the capture as bait.





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Melanerpes formicivorus1800Hastings Reservation

(4 September)

1240. ♀ <sup>WN/DB</sup> #260 atop main tree now at least.1320. 22 birds here now. 1 is ♀ <sup>DB-LP/DB</sup> <sub>Red/M</sub> #193 (!) [from School Hill].

No chasing or other shenanigans; ♀193 preening here at the moment.

No other birds seen here now. ♀193 looks fairly at home, however.

1337. Several (3-4) birds (peacefully) here, inc. ♀260 and

③ ♂ <sub>M/LP</sub> #347. Perhaps the ♂-situation is not so bad after all.1340. ♂ <sub>ub</sub> now down low eyeing the captive. This bird is in the storage area, looking as though he belongs here. I guess ♂334 may have been "replaced" by this character.1355. ♂ <sub>ub</sub> made several passes at the captive, but did not get caught. ♀193 up near ♀260 in-top of the tree here. ♂ <sub>ub</sub> now eyeing Junior from a distance.1403. Now ♂347, ♂ <sub>ub</sub>, ♀193 all down near Junior. ♂ <sub>ub</sub> landed on the cage but still wasn't caught.1405. ♂ <sub>ub</sub> trums several times while obviously quite nervous about the captive.

1430. ♂ <sub>ub</sub> gradually faded off. ♀♀260, 193 are clearly not strangers (remember the earlier revolution of March(?)). Both are often near each other. No chasing is going on; ♂ <sub>ub</sub> has moved in "replacing" ♂334, who unfortunately seems to be gone; ♂ <sub>ub</sub> is clearly more paranoid than the others and has probably joined recently. ♀193 is probably a member here now also (some brief speculation on the origin of ♀260 might be in order - could she have been one of the 2 sub ♀♀ at School Hill - and therefore the "mother" of ♀♀191+193? Lots of queries regarding her familiarity with these ♀♀, not to mention her abandonment of 1500 when the 1500 ♂♂ moved down, would



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Melanerpes formicivorus1800Hastings Reservation

(4 September)

be neatly cleared up by this hypothesis. Unfortunately, of course, I can't think of any way I could ever know for sure.

5 September

1130. One more try with the captive. This time I'm waiting below the tree.

1300. Once again the bird did go to the cage, but was clearly well aware of the net. At this point it looks like I'll have to wait and try netting again when stinging is underway.

15 October

1220. Watching.

1230. ① ♀ <sup>WH/DB</sup> <sub>WH</sub> #260. ② ♂ <sub>M/LP-DB</sub> #347.

1255 ③ ♀ <sub>Red/M</sub> #193. She definitely lives here now!

1300. ④ ♂ <sub>ub</sub>. (Also definitely now here for good). Group same as in September.

1305. Leaving. Must try to get that ♂!

17 October

Changes for the group composition:

Purge: ♂ 334. Last seen at 1800 on 24 June, gone from 1800 by 2 September, but apparently seen up on School Hill on 23 July (see School Hill notes). Group change had clearly occurred by 21 August, when 4 birds were seen here. ~~Left group about 22 July ± 1 month.~~  
(most likely during the first 2 weeks of July).

→ Left Group about 8 July ± 2 weeks.

Add: ♀ 193. This bird remains a continual problem!

See back of sheet for sightings. She clearly lives here now, and was clearly contemplating the move as far back as June (note ♀ 260's odd tolerance of both ♀ 191 + 193 - clearly they know each other from somewhere! In any case, a not unreasonable simplification would seem to be to have this bird move to 1800 (from School Hill) between 7 August

# Sightings of 9/93 1977 (not necessary complete)

School Hill	S.H. West	1500	1800
2/22	.	2/22	

4/25

6/2 Revolution at  
6/5 1800  
6/24  
8/22-4 birds seen here  
9/4  
10/15

8/7 Caught at roost!

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Melanerpes formicivorus1800Hastings Reservation

(17 October)

(When she was caught roosting at School Hill - as good a criterion of residency as any I can think of!) and ~~Sept~~ 4 September, when she was again seen at 1800 (she was not seen at School Hill on the 31 August watch)  
 → Moved about 21 August  $\pm$  2 wks.

Also add: ♂619. Here (presumably) on <sup>21</sup>~~22~~ August; not here on 24 June → Moved here [adult] 22 July  $\pm$  1 month.

12 November

830. Net up.

1700. Net down. No catch.

13 November

930. Watching.

940. ♂ sub. ♂ LP-DG/LP #347. ♂ ♀ DB-LP/LP #193.

1005. Seen all 3 of the above birds at least once more apiece. Where's ♀260??

1030. It will take another watch to be sure, but as far as I can tell there are only 3 birds here, ♀260 not being one of them.

4 December

1505. Watching. In Main tree: ♂ ♀ Res/M #193 and ♂ ♂ M/LP-DE #347.

1545. Birds are down by the creek.

1555. ♀193 and a ♂ found along the creek. ~~But~~ Still no sign of ♀260.13 December

Counted stores: 851, all in the main tree (nothing in "nest tree").

1400. Watching. ♀193 down by the creek. No one showed up at the Main tree by 1430.

14 December

1145. There are 2 ♀♀ and a ♂ together in the main tree. Most likely ♀260 is here after all. (Alternatively, ♀191 from School Hill may have moved here so I'll have to wait until I get a good look to be sure).





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Walter D. Koenig

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Melanerpes formicivorusHaystack-BlomquistHastings Reservation16 January

1545. ① ♀ Wh-Dr/Or #247 sapsucking in a Valley Oak just down from the storage tree on Blomquist's.

Counted stores: 1378

1610. ② ♀ Yel/Blk #176. ③ ♂ Or/M WhLW #173 from Lower Haystack here with the other birds in granary and sapsucking!

1618. ♂ 173 now actually working stores in the granary after flying here from the sap tree and being greeted by the others. He lives here.

1623. Hum. ♀ 247 still in granary. Down in one of the perch trees is a ♂, probably <sup>No</sup> #173 and ④ ♂ DBRW #309, also from L Haystack. What is going on here, anyway? The other ♂ is ⑤ ♂ R-W/Red, apparently #171, also a L. Hay bird (wing-streamer lost).

1645. ♂ 309 in storage tree sitting now. The 2 ♀♀ are in the sap tree. These do in fact seem to be the 5 birds hanging around up here at the moment. Wow!

1648. ♂ 309 in sap tree sapsucking now.

It would appear not unlikely that some catastrophe has befallen the 4 ♂♂ formerly in this group (2 1st yr). I don't know. In any case, the 2 adults here from Lower Haystack certainly seem at home, as does the first-year bird, though I trust he isn't planning on making this permanent.

18 January

1050. ① ♂ Or/M (no WS) #171 here with several others; all flushing as I came to switch acorns.

1107. ② ♂ WhLW #173 came and scolded me briefly as I prepared to go up into the granary.

I switched 50 acorns from the granary; adding 25-30 of my own in their stead.





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Walter D. Koenig

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Melanerpes formicivorusHaystack-BlomquistHastings Reservation24 January

1300. ① ♀ yel/Blk #176 sapsucking in Valley Oak. ② ♀247 over a ways.

28 January

1600. A ♂ in the sap tree definitely is ♂<sub>M</sub>/split(D-L) - probably 301.

1603. Now ① ♀ yel/Blk #176 sapsucking. ② ♀247 chasing some Hickey-bird from the granary.

③ 1606 ♂ whlw #173 in granary along with ♀247.

④ 1617 ♂ or-~~44~~/Red #171 here. Also, the above bird believed to have been #301 may very well have been ⑤ ♂ Black-lc/m #309 (~~wing streamer~~ wing streamer hiding).

1621. ♂309 flew to a crevice and dipped in several times, apparently drinking.

1623. ⑥ ♂ whRW #308 here now sapsucking in their sap tree!

1625. ⑦ ♂ OrRW or/ #307 in sap tree also!

1635. Leaving. At least 2 of the 1<sup>st</sup> year birds (307, 308) still here.

9 February

1630. ① ♀247 plus a 2<sup>nd</sup> ♀ sapsucking in the usual tree.

1640. ② ♂ or-y/m #171 here for sure.

1645. ③ ♂ OrRW or/ #307 ~~in sap tree~~ here also by ♂171.

1650. ④ ♀ yel/#176 here.

1652. ⑤ ♂ DBRW #309 just landed in sap tree below ♀247.

1700. Both these birds still in sap tree; no obvious aggressive moves by the ♀

1701. ⑥ ♂ or/m #173 in granary with ♂171. Wing streamer lost.

1702. 5 birds (all but ♂307) in granary now; ♂♂ working stores; ♀♀ sitting.

1703. ♂309 just landed briefly in large Valley Oak by the fence on HNHRR, then proceeded off toward Lower Haystack.

1715. Leaving. ♂♂171, 173 are certainly here "for good". All others probably gone.



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Walter D. Koenig

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Melanerpes formicivorusHaystack-BlomquistHastings Reservation

(9 February) Purge:

① ♂ 246. last seen 10 December, gone by 16 January

→ Disappeared about 28 December  $\pm$  2 weeks

② ♂ 529 (unbanded). last seen 14 September, gone by 6 October.

→ Disappeared about 25 September 1976  $\pm$  2 weeks

③ ♂ 300. last seen 15 November, gone by 16 January

→ Disappeared about 15 December 1976  $\pm$  1 month

④ ♂ 301. last seen 10 December, gone by 16 January

→ Disappeared about 28 December  $\pm$  2 weeks

Add:

① ♂ 171. 2<sup>nd</sup> year bird from Lower Haystack moved to Hay-Blomquist 28 December 1976② ♂ 173. 2<sup>nd</sup> year bird from Lower Haystack moved to Hay-Blomquist 28 December 19767 March

1600. Both ♀♀ and ♂ 171 seen here; sap sucking taking place.

Counted stores: 761

19 March

1250. 2 ♀♀ (♀ #176 seen, other's bands not seen but presumably ♀ 247) at a hole in a tree down on Blomquist's between the granary and the '75-'76 nest tree.

1255. ② ♀ 247 in granary now working stores.

1300. ③ ♂ Or RW #307 hawking here also (1<sup>st</sup>-yr bird from LH).

Also a ♂ formerly with a left wing-streamer.

1310. ④ ♂ DBRW #309 sap sucking here. (another L. Hay 1<sup>st</sup>-yr.)

1317. ⑤ ♂ #171 (lost LWS) seen. ♂ 307 just flew back over to lower Haystack.

1325. The 3 H-B birds (2 ♀♀, 1 ♂) together in granary; no clear sign of ♂ 173.



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Melanerpes formicivorus

Haystack-Blomquist

Hastings Reservation

(19 March)

1355. Can't see bants, but I finally found a likely candidate for ♂173; left bants jived well (♂ or / m) in any case.

1410. Finally saw the ♂<sup>Or/Blk</sup><sub>Or/m</sub> for #173.

Leaving. Group in good shape.

4 April

1520. ♀176 in granary; eventually flew off with a 2<sup>nd</sup> bird to the forest ~~feeding~~ down on Blomquist's near where these birds were sapsucking last year.

1527. Walked down to the area and found ♀247, who was indeed sapsucking along the edge of the forest by the old fence in a live oak.

Counted stores: 457; many empty shells left just within the last month.

21 April

1150. 2 birds seen in the granary and an unknown number were in the Buckeye area down the side of the hill by the old fence on Blomquist's. Nobody was in any hole that I checked.

30 April

1700. Nobody seen.

4 May

1120. ♂ in 75/76 nest hole. No doubt that's it.

1600. Opened the hole to find 1 egg, which was cold and fresh (nobody in hole this time).

12 May

1000. After almost constant cold, rainy weather since 6 May, I was finally able to return, finding no bird in hole and no eggs.

1100. Counted stores: 175. Low, but there definitely are some. I checked all the other holes I know of but couldn't find anything. The birds themselves were not in evidence either.

17 May

1315. Looked all over, finally flushing one AW, but there was no one in any of the holes I could find.

20 May

1655. After searching for some time, I finally found all





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Walter D. Koenig

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Melanerpes formicivorusHaystack-Blomquist Nest Record

4 May 1120

♂ 1500.

12 May 1000

Hastings Reservation

Bird in hole.

Hole opened: 1 egg, fresh (cold)

① 25.0 × 19.6 mm

Hole opened: No eggs.



1977

Walter D. Koenig

6

Melanerpes formicivorusHaystack-BlomquistHastings Reservation

(20 May)

4 birds in the edge of the buckeye forest (the presumed sap area).  
2♂♂ and 2♀♀; ♀WRW #176 for sure; the others hiding their legs.  
1710. Enough of a peak to get ♀247; both ♂♂ quite hidden.

1715. No point in pushing the issue. This area might be checked carefully next opportunity, however.

24 May

1955. Bird in '75-'76 nest hole - at least they're still roosting here.

26 May

1625. 4 birds in presumed sap area again: ♀247, 2nd ♀, ♂, and a 4th bird almost completely hidden. Evidently there's not much going on here yet.

8 June

1010. Apparently there are a very few intact acorns left stored here (I counted 7) but for all practical purposes I should think that stores are essentially depleted here.

1020. Down in the sap area were at least 2 birds: <sup>①</sup>♀WRW #176 and <sup>②</sup>♂or-/m #171. While watching them I heard some further calling in the tall perch tree behind me.

<sup>③</sup>1040. ♀wn-/Reddish #247 in perch tree.

1100. Over in a rather far area where I'd never tracked these birds before (just above the pond toward Maggie's [not toward HNHR]) at least 3 of the birds were found: ~~♀~~ ♀176, and ♂♂171, <sup>④</sup>173 for sure. They were going into the forest, possibly chasing an intruder, and also ~~drilling~~ pecking (at an acorn?) in a snag.

1115. Can't say as I know exactly what's up here, but my guess is that this is another sap area. Perhaps they also make forays to the water trough from here. In any case, everybody seems to be here (though ♀247 was none too conspicuous) and nothing obvious seems to be up nestwise.



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Melanerpes formicivorusHaystack-BlomquistHastings Reservation3 July

1950. ♀ in the roost hole in the large Valley Oak on Blomquist's over toward the knoll. It ought to be checked on a warm morning soon just in case.

8 July

840. ♀ WRW #176 and 2 others hawking near the granary.

22 July

930. One of the ♂♂ (♂ Red/m) flushed to the perch tree by the forest; meanwhile, several birds over on the other side (on Blomquist's toward the knoll) turned out to contain ♂236, and were therefore lower Haystack birds.

955. Now in the area where ♂236 was a few minutes ago is ♀WRW #176. Several other birds are calling nearby. L. Hay birds even further toward the road.

29 August

915. Several birds in the '75-76 nest tree, inc. ① ♀ <sup>WR/OR</sup>/<sub>WR/OR</sub> #247 and one (at least) of the banded ♂♂, along with at least a 3<sup>rd</sup> bird.

923. Several (other?) birds are in the Buckeye forest on the slope towards Blomquist's pond next to the fence. Could be 1500 birds for all I can tell.

935. ♀ <sup>WR-DP/OR</sup>/<sub>WR-DP/OR</sub> #247 hawking in granary with ① ♂ <sup>R-W/Red</sup>/<sub>R-W/Red</sub> #171. ② ♂ <sup>OR/Blk</sup>/<sub>OR/Blk</sub> #173 also seen fair-poorly.

945. Up above me near the top of the hill is ≥1 Valley Oak loaded with good-looking acorns where 2 of the woodpeckers just flew; they both chased Scrub Jays and at least 1 harvested an acorn.

955. There is actually quite a bit of activity here, between the H-B birds flying around ~~to~~ and the other group(s) of birds on the periphery of the territory. The crop is clearly good here.

There seemed to be 4 birds here, but ♀176 was not seen for sure.

957. ♀247 just chased an intruder. Leaving for now.



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8

Melanerpes formicivorusHaystack-BlomquistHastings Reservation10 October

1010. 3-4 birds, most or all of whom were unbanded, were in the lone Valley Oak on HNHK down the trail from the '75-76 nest tree, apparently harvesting acorns. Meanwhile the H-B birds were up at Hay-Blom; I saw ♂ Or/Blk #173 when he chased a Scrub Jay out of the granary and I heard other birds in the area.

1025. ♀ WRW #176, ♂ Or-Yel/Red #171, and a 2<sup>nd</sup> ♀. Birds storing.

1030. ♀ WH-DR #247. All 4 here doing fine.

6 November

A true first: both ♂246 (banded as adult here on 4 Oct. 1975) and ♂500 (1976 nestling) are alive and well and living together at Blomone, a group over on Blomquist's over by the Casabo (see general Mf. notes, 30 October 1977). I had listed both these birds as having disappeared in December 1976 ('2 weeks apart!'); their fates can now be changed to "Moved to unwatched group / Mf. group about."

"Moved to unwatched group."

13 December

1450. While trying to make a brief watch here, ♀ LAM #391 from Low Hay landed in the Valley Oak next to the storage tree, and was immediately chased by ♂ Or-wh/or #171 and ♂ Red #173.

This is rather interesting, since ♀391 and the 2 ♂♂ are very likely full-sibs! No altruism there!! (Of course, the sexes were opposite also).

Counted stores (the granary is quite full): 2443

1525. ♀ WH-DR/or #247 seen in the Valley Oak by the Poison Oak patch.

14 December

930. There's something going on with another group in the Buckeye forest below here. In any case, this time I saw ♀ WRW #176 along with ♀247 and ♂ Or-Yel/or #171.

940. ♂ Or/Blk #173. Also several other birds - several banded -





Melanerpes formicivorusHaystack-BlongquistHastings Reservation

(14 December)

mostly in the area just below the granary to the edge of the forest.

945. I'm not sure what's happening, but the extra birds causing the activity below the main area are occasionally penetrating to here. I definitely saw at least one such bird, ♂ Or BW w/ black  $\diamond$  who may have been either (♂ 307) from L. Hay or ♂ 246, the bird from here who moved over to Blongquist's. (The black triangle may tell me).

1000. There are definitely some other strange banded and un-birds here (♀ M / ?).

1015. There is definitely something happening peripherally here. On the way back I'll try to track some more birds down.

15 Dec: ♂ 307  
has black dot;  
tis him.



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1

Melanerpes formicivorusLower HaystackHaystack Reservation13 January

♀308 at Finch/Road 1 area; see Finch notes.

16 January

See Hay-Blom notes for several (3) L. Hay ♂♂ over there.

24 January

1330. Counted stores and took acorn samples:

2<sup>o</sup> tree: 216 (25 taken) } 5675Maintree: 5459 (75 taken) } ~~5459~~

1430. ♂RRR#236 up in trees above where I usually sit to watch.

28 January

Lots of Lower Hay birds over at Haystack-Blomquist.

See Hay-Blom notes. (including all 3 juveniles as well as the 2 adult ♂♂).

2 February

945. Watching from hide.

947. ♂♂ RW#307 here in granary; a ♀ also.

953. Several birds over in saddle perch tree, inc. ♂♀ RW#308 and ♂♂ RRR#236.

1040. ♂♀ in storage tree now. Also ♂236 and ♂♀ RW-B/M#170.

1115. Going. Everybody seems intact except for ♀172, who is probably gone (♂♂ 171, 173, and also [temporarily?] 309 are no doubt over at Haystack-Blomquist).

9 February

1100. ♂♂ RW#307 and RW#308 at 1500. See 1500 notes.

♂307 later seen at Hay-Blom along with ♂171 again.

→ Purge:

① ♀172. Last seen 6 October 1976 (by Florence), gone by 15 November; → Disappeared about 26 October ± 2 wks.

② ♂171. Here on 10 December, at Hay-Blom 4 January 1977

→ Moved to watched group 28 December 1976 ± 2 weeks

③ ♂173. Same as ♂171. → Moved to watched group 28 Dec. ± 2 wks.

7 MarchCounted stores: 2<sup>o</sup> tree: 1 }

Maintree: 4331 } 4332



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Melanerpes formicivorusLower HaystackHastings Reservation

(7 March)

1600. The birds, meanwhile, were nowhere to be seen, though I did here a few calls down below the '75 nest tree area.

4 April

♂307 at 1500; see 1500 notes.

1430. Trying to find somebody here; I eventually found an un-wingstreamered ♂(?) on the knoll by the fence, then soon after there were 2+ birds up in the saddle area, inc. ♂OrRW #307, who has come back up from 1500 where he was seen this morning.

1440. ♂RRRW<sup>#236</sup> now in '75 nest tree.

Counted stores: 3488 (main tree).

1510. ♂236 and ♀<sup>LP/M</sup> #170 sitting together just down from the '75 nest tree.

21 April

1200. Some light tapping in the main granary yielding a bird who had apparently been refurbishing the '76 nest hole; with luck, this hole will again be the place. The bird flushed over to the old sap area, where there were several other birds sitting.

30 April

1710. Heard some calls over by the '75 nest area, but otherwise didn't see anybody here.

4 May

1130. Bird in '76 nest hole. No doubt that's the one.

1700. Opened the hole to find 5 eggs, several quite opaque.

12 May

1015. Walking over to the hole, there wasn't ~~an~~ an adult inside, but rasps heard from inside confirmed that hatching had occurred and that somebody was still alive. I didn't go up nor did I stay to count acorns (primarily because of the weather) but there are clearly many many acorns still remaining here.





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Melanerpes formicivorusLower Haystack Nest Record4 May 1130.  
1630Hastings Reservation

Bird seen in hole.

Hole opened, 5 eggs, opaque and warm:

① 27.0 × 18.8 most opaque

② 27.5 × 19.4 not quite as opaque as #1

③ 29.4 × 19.1 " as #2

④ 28.3 × 19.3 " as #3

⑤ 27.1 × 17.6 translucent

Pretty similar in opaque-ness

12 May 1015

Birds have hatched.

17 May 1300

4 babies measured, no trace of (egg)

① Brn-Or (391)

② LP (392)

③ Or-LB (393)

④ Wh-Mauve (390)

17 May 1300

30.7 <sup>14/11.3</sup> ~~21.0~~33.3 <sup>15/12.1</sup> ~~21.0~~26.9 <sup>13/11.2</sup> ~~21.0~~20.9 <sup>12/10.6</sup> ~~18.0~~

5 June 1100

89.3 <sup>93/21.7</sup> 23.5/76/4092.9 <sup>101/22.4</sup> 25.0/71/4582.1 <sup>78/21.5</sup> 24.8/50/3092.6 <sup>75/22.3</sup> 24.9/48/31

ent. FED = 26 April



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Melanerpes formicivorus

Lower Haystack

Hastings Reservation

17 May

1300. Hole opened: 4 babies, measured. Feathers not out of skin yet; eyes closed, lower mandible still 7mm longer than upper.  
3RRR #236 seen hawking as I arrived.

24 May

1830. Watching from hide. Nobody anywhere at the moment.  
1850. Babies are getting fed. Now in the main tree I see ① ♂ DRW #309, eating an acorn.

1856. Several birds in main tree now, inc. ② ♂ OrRW #307 and ③ ♀ Wh-Dr/M #170.

1903. ④ 3RRR #236 fed babies acorn bits.

1930. Thought I had ♀ub for a while, but I very well may not have. She is unfortunately pretty important at this point, and I'll have to return to look for her again. ♀308 is very probably gone.

25 May

1030. Back again. It's fairly warm and pleasant at the moment.

1100. Now ⑤ 3RRR hawking in old UHay granary. The other 3 also here: ♂♂307, 309, ♀170. ♀ub possibly in nest.

→ 1120. ♀170 just fed the babies what definitely looked like a tent caterpillar, and a minute later I definitely saw her picking 2 others off the Valley Oak perch tree, thrash them about for several minutes to prepare them, and then go to the nest. Note also that getting these things entails "leaf gleaning" for sure.

1132. ♀170 now doing some conventional hawking.

1145. Saved! ⑤ ♀ub definitely here; furthermore, it's that same ♀ with the funny growth on her right tarsometatarsus, thus no doubt the same bird seen since at least 1975.

All 5 birds were seen feeding the babies; especially the Malacosoma feedings by ♀170 (perhaps only by her) noted above.



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Melanerpes formicivorusLower HaystackHastings Reservation

(25 May)

Purge: ♀308. Last seen intruding (along with ♂307) at 1500 on 9 February. Gone for sure only by 24 May.

→ Disappeared about 31 March  $\pm$  1 month (there is some reason to believe that I should have seen her with the other 2 at Hay-Blom on 19 March, which, if used as her gone deadline, would put her disappearance at about 1 March).

5 June

1100. Bled, measured, and banded the 4 babies, all of whom look good (though pretty dirty) as #390 to 393.

8 June

930. Counted stores here: only 1515, way down from my last count. The babies could be heard in their hole, but I didn't see any adults, nor was anybody in any other hole that I know of (i.e. in the '75 nest area).

3 July

1855. Watching from hide, but the light isn't very good.

1905. 1-2 birds to the granary from way out on the knoll.

1913. 1 baby here begging from an adult ♂. Blue/Wh #391.

1920. Looks like there are now 2 babies here and an adult ♀.

1930. Calling from over on the knoll again somewhere. All quiet here.

1940. Here now: (2) ♂ PR #236 and (3) Wh-Red(?) / M #390.

1945. Leaving. The light, wind, and temperature aren't making this profitable. Come back in the morning.

4 July

1000. Watching from hide.

1035. ♂ PR #236 in 20 tree.

1135. Finally some birds in the granary, inc. ♂236, (2) ♀ Wh-IM #170, (3) ♀ub, and 2 babies, being fed acorns by the adults. Conditions are still poor, however, and I wasn't able to identify either of them.

1200. Leaving. This group is pulling their usual disappearing act. Counted stores: 1165.



Melanerpes formicivorusLower HaystackHastings Reservation7 July

1725. Back to try again. In the 2<sup>o</sup> granary are ♂ORR#236 and ② j <sup>LG/wh?</sup> Mauve?/wh #391. j391 stuck around 15-20 minutes.

1810. A ♀ here now plus an adult ♂.

1825. Obviously things are still slow here, but once they disappear down the canyon toward Hallisey's they're obviously gone for good. I should try an early morning watch before drawing any conclusions; late afternoon is fairly unconvincing.

1830. Down at the edge of the canyon forest are ♂236, j391, and ③ ? OrRW#307 (who flew way out toward Hay-Blom on the knoll!)

1838. In 2<sup>o</sup> tree: ♂236, j391, ④ ♀ Banded #170, and a 2<sup>nd</sup> juv.

1840. Leaving. I still don't seem to be able to come up with more than 2 babies at any one time.

8 July

850. And again.

855. ① j LG/M #391, ad ♂, and ad ♀ in saddle tree. ② ♂ OrRW#307 karrit-cutting from forest edge down toward the canyon.

902. Several birds in LHay tree, inc. ③ ♀ub, ④ j ~~Yel-Blk/Red~~ #390, and 2<sup>nd</sup> ad ♀.

910. ♂ORR#236 here in LH tree being solicited by j391.

935. ♂236 with jj390+391 in main tree.

940. Intruder just chased out of LH tree by ♂236.

943. ⑥ ♀ <sup>R-W-Blue</sup> #170, ♂236, and 2<sup>nd</sup> ♀ in LH tree.

945. Intruder is apparently a banded ♂. He's still in the vicinity.

946. ♂307 now in LHay tree.

1000. Finally ⑦ ♂ OrRW#307 in saddle area.

1100. j390, ♂307 in LHay tree. j307 begging at ♂307, who's eating an acorn. ♂307 does not feed him.

1105. Leaving. Having finally seen all the adults today, and having seen the same 2 fledglings several times now, I'm finally forced to conclude





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Melanerpes formicivorus

Lower Haystack

Hastings Reservation

(8 July)

that neither j392 nor 393 made it this far.

1500. Returned here in order to open up the nest and see if I could find any remains of the 2 babies who have apparently disappeared. Opening the nest and reaching in, a telltale loud squeak heralded the fact that the hole had been taken over by a Woodrat (Dusky-footed), who I pulled out and deposited on the ground 9.1m below (from whence he hopped off into the nearby chaparral area). This beast had obviously been here awhile, as there was already 2-3 inches of droppings and branchlets, which I removed and examined for woodpecker remains. My guess is that ① the rat's been here almost since the babies fledged (about 2½-3 weeks ago) ② the babies all successfully made it out of the nest (fledged), but that ③ the disappearance of the 2 may be due in part to the loss of their natal hole to the rat - not, necessarily, by the rat inflicting some mortal wound on an unwarily roosting baby but more plausibly, perhaps, by a baby discovering only too late that he could not roost in this hole and not knowing anywhere else to go, henceforth roosting outside where for one reason or another he could not make it.

This was interesting and may inspire me somewhat belatedly to check up on more nest holes following fledging itself.

PURGE jj 392, 393: Not seen after banding on 5 June 1977

22 July

940. ♂RRR#236 along with several others in the near side of Hay-Blom on Blomquist's side.

1000. ♂DBW#309 + others slightly over toward the road.

1010. j<sup>Orish/M</sup>#390 back in the forest behind the knoll. Eating <sup>small</sup> acorns?



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8

Melanerpes formicivorusLower HaystackHastings Reservation

(22 July)

Now that I think of it it's possible that these birds are here on the way back from getting water at the pond (?).

1015. Leaving. Stopping over at the Valley Oak where the birds were, I discovered it laden heavily with small, green acorns. If that one tree's any indication, it may be another very good acorn year.

29 August

1010. Watching from hide, but it all looks totally dead. My guess is that they're all over across the fence where I saw them on 22 July.

1013. Some calls and a ♀ hawking in the granary.

1020. Dawn birds aren't sitting still long enough in one place for me to identify them. There are several around now, though.

1033. ① ♂ ~~DB~~ / M / LP - #236 - wing-streamer gone.

1042. ② ? DB-LP/M #309 in UH tree.

1045. ③ LG / ? (maybe lost?) #391. Still ♂-type, but very possibly molting to ♀

1135. ④ ♀ R-W-B / Wn #170

1142. ⑤ ♂ Or / M / DR #307.

1220. ⑥ ♀ ub. Mostly hawking still going on.

1240. Time to go. Birds still around but not especially conspicuous. Don't know about #390 - he could very well be gone.

1245. Rather to my surprise, a search of the granary exposed no unambiguously intact acorns, though it is littered with broken shells. They are out of stores!

21 September

1040. ♂309 seen intruding down at ♀ (see ♀ notes).

10 October

1030. Watching.

1050. ① ♀ R-W-B / M #170. 1100. ② ♂ Or / RW #307.

1100. Birds are mostly hawking away from the granary.



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Melanerpes formicivorusLower HaystackHastings Reservation

(10 October)

1115. ③ [♀] ub hawking in UH tree. Not seen real well, however.

1120. ④ ♀ LA/M #391 now in UH tree.

1130. ③ ♂<sup>M</sup>/<sub>DE</sub>-Pink #236 working stores with others in main granary.

Seen better a minute later in UH tree.

1155. ⑥ ♂ DBRW #309; storing

1245. Though the birds are not especially visible in the granary,

I still have now seen all the banded birds several times except for j390. The ub ♀ was barely, if at all seen, however, so it will take another good watch to be sure of all this.

Nonetheless I suspect that ♀391 may be the only juvenile left.

1300. Leaving. Birds still busy storing.

25 October

945. Watching. Noone here at the moment.

951. ① ♀<sup>LA</sup>/<sub>LA/M</sub> #391. Some Carricks off in the distance somewhere.

(Something going on not too far from here).

1000. Birds busy storing. ② ♂<sup>DE</sup>/<sub>OR-DE</sub> #236; ③ ♀ R-W-B/WH #170.

1005. ④ ♂ DRW #307.

1013. ⑤ ♂ DBRW #309 over in the 2° tree.

1021. Somebody just got chased out of the main tree

1026. Well I'll be: ⑥ ♂<sup>DE</sup>/<sub>OR-DE</sub> #390 for sure storing in the

2° tree! Good thing I came and looked again!

1045. Leaving. Got everyone except the ub ♀, whose continued presence

I certainly wouldn't swear to, but, on the other hand, she has been known to disappear for months on end in the past. And if j390 can go unfound since July, she can certainly have been missed since August.

13 December

♀391 seen intruding at Hay-Blom (see Hay-Blom notes)

14 December

1100. Counted stores: Main tree: 4410 } (5022)





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Melanerpes formicivorus

Lower Haystack

Hastings Reservation

(14 December)

20 trees 612 / 5022

♂307 seen at Hay-Blom.



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Walter D. Koenig

1

Melanerpes formicivorusGateHastings Reservation14 January

Counted stores: Gate tree: 482 }  
 West tree: 622 } 1104

1500. Watched for a spell. ①♂<sub>m</sub> #60 here. ②♂<sub>or-wm/m</sub> #258.

1504. ③♀<sub>ub</sub> hawking.

1510. Off.

25 January

1030. Several birds in Gate sycamore: ①♂<sub>RRL</sub> #238; ②♂<sub>BP-wm</sub> #258;  
 ③♂<sub>m</sub> #60. ④♂<sub>ub</sub>. ⑤♀<sub>ub</sub>.

26 January

1000. ①♂<sub>m</sub> #258 in Gate sycamore.

1315. ②♂<sub>m</sub> #238 and 5 others atop Gate; the only real question at this point is whether ~~♂~~ ③♂<sub>m</sub> #58 still exists or if there are in fact 2 <sub>ub</sub> ♂♂ here.

1320. ③♂<sub>LG/LG</sub> #58! In gate tree. A good look at his right leg.

1330. ④♀<sub>ub</sub>. ⑤♂<sub>ub</sub>. #60 suddenly becomes questionable!

1355. ⑥♂<sub>Da/Da</sub> #60. Both here for sure. Now the only dispute is over the presence of the 2<sup>nd</sup> <sub>ub</sub> ♂, who's going to be very hard to prove.

18 February

1110. Watching. ①♂<sub>RRLW</sub> #238 in Westgate tree; ②♂<sub>Or-LB/Or</sub> #258 in Gate tree.

1115. ③♂<sub>Da/Da</sub> #60 hawking in Gate tree.

1130. ④♂<sub>ub</sub>, ⑤♀<sub>ub</sub>.

1145. ♂60 and a 2<sup>nd</sup> ♂ doing some sapsucking also in a Valley Oak between the creek and the road and also between the 2 sycamore storage trees.

1200. Leaving. No further hint of a 7<sup>th</sup> (2<sup>nd</sup> <sub>ub</sub> ♂) bird.

However, just as I was about gone, ⑥♂<sub>LG/LG</sub> #58 showed up.

26 February

1330. ♂<sub>RRLW</sub> #238 hawking near gate. A bird inside the Westgate nest hole again as well.

8 March

Counted stores: Gate tree: 215 }  
 West tree: 505 } 720



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2

Melanerpes formicivorus

Gate

Hastings Reservation

6 April

1100. Counted stores: Gate tree: 0  
Westgate tree: 358 } 358

♂238 was in the top of the Gate tree when I arrived, and a ♀ was inside the hole in the Westgate tree while I was counting the acorns there.

21 April

1600. Bird in a hole in the Live Oak! Maybe they'll do it there -

22 April

1500. ♀ in same hole again; several other birds in the area. Hole was checked (with the "scope") and I'm fairly sure I would have seen a egg if there'd been one - but I didn't. Afterwards I checked the other holes and noone was in them, so there is still hope -

23 April

1400. Lots of birds here but noone in any holes.

24 April

1300. There was a bird in the hole in Westgate tree and a ♂ in the hole in the Live Oak.

1915. Nobody in any holes.

25 April

1230. Nobody in holes.

26 April

1300. Bird in the hole in Westgate tree, not in Live Oak. Boo.

27 April

1905. Nobody in holes; several birds around the field by the Live Oak.

30 April

1130. Watched while 4-5 of these birds harassed a Crow who had landed in the Westgate tree near where the '75 nest hole (and probably this year's also) is. The birds mobbed it and definitely flew at it numerous times, mostly giving the kararan - part of the karit-cut while they dive-bombed the bird, who eventually flew out of the area entirely.



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Melanerpes formicivorusGateHastings Reservation2 May

1345. Bird in hole in Westgate Sycamore; I'm afraid I have to finally concede that the nest is there rather than in the Live Oak.

3 May

1100. Noone in any holes here. I'll have to begin entertaining the possibility that these birds are nesting somewhere else altogether.

5 May

1610. Bird in WGate hole, who wouldn't come out. Surely this is it, damn it.

9 May

1130. Nobody in WGate hole as far as I could tell.

10 May

1315. Bird in WGate hole.

12 May

1500. " " " "

14 May

1340. Watching WGate hole/tree.

1355. ① ♀ub next to WGate tree. Still noone at/in hole.

1420. ♀ub here again. Now also ③ ♂m/La #58, apparently come to chase an intruder

1440. Whatever may have been going on here before, I dare say it's a safe bet that there's no nest here now. I do sort of think there probably was one, though - most likely it bit the dust along with everyone else's which hatched during the [continuing] terrible weather.

1443. ♂58 and ♀ub together in WGate; ③ ♂Or-10r left WS #238 here also.

Counted stores: 417 (in WGate tree).

After all the hour of watching, I finally confronted the hole head-on while counting stores, finding an adult well inside looking out. I guess I have to revise my hasty write-off of this group, and instead presume that they are still incubating (that bird may have been in the hole the entire time for all I know!)

16 May

1015. Bird in hole.

17 May

1530. " " " Watching.





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Walter D. Koenig

4

Melanerpes formicivorusGaleHastings Reservation

(17 May)

1540. ♂ or-wy/m #258 flew to top of Wc tree.

1605. ♀ub on top of Wc, then flew toward ARF. Bird (♂) still in hole.

1610. ♂ub and the ♀ atop Wc.

1615. The poor ♂ is still looking out of the hole, as he has been since I got here. I still don't know whether they're incubating or feeding young, but one might guess the former.

1902. Back again. Bird in hole. Another just chased off a Starling (go Woodpeckers!) from the Wc tree.

1905. 3 on top of Wc: ♂58, ♀ub, ♂258.

1910. ♂58 flew to hole, without food (best I could tell), went in (the other bird had left, I guess), looked out, stayed inside. Incubation it is, almost for sure I should think.

1920. ♂58 still looking out; 2nd ♂ below him on branch. Leaving.

1923. Hold it: several birds converged on the area: the ♀ went inside the lower hole for a short time while 2 ♂ went inside the upper one (♂258 + ?). Perhaps things aren't as far along here as I'd been thinking.

18 May

Some birds here roosting in the willows.

19 May

1230-1250. Watched, seeing ♂RRc #238. I think they're feeding young now, but I only had a very brief look at what seemed to be a bird bringing food, so I'm not sure. They certainly do have a nest there, in any case.

20 May

1025. Bird in hole. Watching. Birds all hawking like crazy. ♂♀ub, ♂♂ub.

1036. Watched change over: ♂, after peering out for quite some time, finally flew out, met 1-2 others in tree. A short time later another bird flew to the hole. Surely this is still in incubation.



1977

Walter D. Koenig

5

Melanerpes formicivorusGateHastings Reservation21 May1815. Watching. Bird in hole<sup>(♀)</sup>; ♂<sup>(♂)</sup> atop WG tree.

1830. ♂58 took the place of the ♀; couldn't tell if he had food or not.

1840. Still incubating?

26 May

1845. Watching. Nobody looking out of hole.

1853. ♂<sup>(♂)</sup> atop WG tree.

1935. Absolutely no interest shown in the nest, nor is there a bird in it this time. Definitely looks grim.

27 May

1500. Nobody in hole in WG tree. However, a bird was in the lower hole in the willow by the creek, prompting me to go over there. He flushed, leaving numerous rasping babies!! I haven't been duped this completely in a long time! I must admit that I'm quite pleased the nest wasn't in the WG tree after all, however. This one will have to be cut open as soon as possible.

29 May

1430. Hole opened: 5 babies! Pretty far along. All were marked and measured. I also found a Rocket Red wing streamer on the ground almost below the hole, which I presume was ♂238's. It was definitely well worn.

2 June

930. Watching hole; ambush set up for unbanded birds.

1030. Given up on the ambush part; now just watching.

1115. ~~1035~~ Somehow, this just isn't working out. I'm leaving.5 June

1945. Heard some reassuring rasps from the nest.

6 June

1400. Banded and measured the babies as #s 394 to 398.

7 June

1230. Bird in the hole in the White Sycamore. It is just dawning on me that this group might just be crazy enough to have a second clutch here...

8 June1815. Bird in White hole, I dare say I bet it is a 2<sup>nd</sup> nest...!



1977

Walter D. Koenig

6

Melanerpes formicivorusCate Nest Record

27 May 1500.

29 May 1430.

① DB-DB (397)

② LP-DB (398)

29 May 1430

48.9 <sup>22.5/14.7</sup>  
21.667.4 <sup>49/18.2</sup>  
22.6/13/10

6 June 1400

75.5 <sup>64/20.6</sup>  
22.5/34/2575.6 <sup>82/22.2</sup>  
23.5/58/39Hastings Reservation

Nest discovered

Hole opened: 5 babies

③ Or-Brn (396)

④ Brk-Pbk(W) (395)

⑤ Brn-Or (394)

50.8 <sup>23/15.9</sup>  
21.563.7 <sup>35/17.5</sup>  
22.8/10/871.8 <sup>38/17.9</sup>  
22.8/12/1071.2 <sup>63/21.8</sup>  
23.6/38/2479.7 <sup>81/21.7</sup>  
22.6/53/3584.9 <sup>84/23.4</sup>  
24.1/57/36





1977 Walter D. Koenig

7

Melanerpes formicivorus

Gate

Hastings Reservation

13 June

1445. Watching hole in WGate tree. ♀ in hole. If they do have a nest here, the babies should most likely be hatched by now.

1450. ♂<sup>LG/LG</sup><sub>M</sub> #58 atop WGate tree.

1455. ♂<sub>ub</sub> here now. His forehead is very yellowish-red, almost as if some of his crown has run down onto the white.

1530. ♂<sup>DA</sup> #60 ♂ landed at the hole, sat at edge for quite a while, but didn't go in.

1600. ♀ in hole. No feedings, however as yet. Very possibly could be incubating, but this watch wasn't conclusive.

16 June

1930. Counted stores: 202 (in WGate tree). Didn't see any sign of life from the hole here in WGate.

2 July

1830. Birds are in the flat area across the creek. Here at the WGate tree there is no sign of life at the hole, and indeed I've noted no activity here in passing during the last couple weeks. If they did have a nest here, which I actually consider still plausible, I doubt very much that it's still extant.

8 July

2000. There are undeniably 2 adult ♀♀ together (at least 1 <sub>ub</sub>) in the Gate tree;

2010. These 2 birds still peaceable together. Looks seriously like I'm going to have to fit in another ♀ here somehow. One or more juvs seen/heard here also.

Reinstake  
Q574?

12 July

1920. At least 7-8 birds were over on the side of School Hill above the road to Tregea's. I watched 1 bird fly way up ~~above the~~ above the chaparral area (essentially to S.H. West area!). And it was clear that they had been going all over up the hillside here.

18 July

900. Attempting to find birds here. Have just come across ♂ JLP-BIK/M #397 near the nest tree.



1977

Walter D. Koenig

8

Melanerpes formicivorusGateHastings Reservation

(18 July)

920. I was able to pick up several birds with up to 9 in the Gate tree at one time for a spell: ② ♀ ub ③ ♂ Red-wn/M #258; ④ j Yel/DB-Yel(w) #394, ⑤ j Blk-wn(w)/Blk #395; ⑥ j LB/Red-Lght #398.

932. <sup>(7)</sup> 2 adult u.b. ♀♀ together again in a Valley Oak between the sycamores.

1000. A ♂ with an apparently non-functional right leg is in the Gate tree. Seems to me that I watched this bird go to the hole here while I was watching it and was confused because he was ♂60 whose M band is on his left leg. [∴ ♂60 on basis of right leg]. Now left leg seen and it is he: ♂M #60.

1015. I can see 1 or more AW sapsucking back in a live oak behind the nest tree. j397 back there.

1032. ♂♂ Dr-Dr/Dr #238. ⑩ ♂ ub back in the sap tree.

1045. j394 over here now.

✓ 1100. Counted stores: 180 (in Gate tree).

1109. Wow! ⑪ j M/Red-Dr #396 now sitting in the perch near the nest tree. That's all except for ♂58, who is certainly here.

30 July

Change: ♀574. This bird was purged on 10 October 1976 after not having been seen for sure since 9 April 1976.

Due to the obvious difficulties in seeing 2 ub ♀♀ (or ♂♂) simultaneously, the definite presence of 2 such ♀♀ now forces her reinstatement.

21 August

Lots of activity here at dusk, when a Great Horned Owl flew over just about at roosted time and sat by the nest tree. The birds karrit-cutted like crazy all over for several minutes, then finally roosted, but not in the nest tree (the willow).

31 August

Best I can tell, this group is plum out of stores.



1977

Walter D. Koenig

9

Melanerpes formicivorusGateHastings Reservation1 September

830. Watching. 7 birds in the one limb in the Gate sycamore!  
Includes ① ♀ ub, ② j yel/DK-wh(w) #394, ③ j Blk-wh(w)/Blk #395, ④ j M/Red-LB<sup>LB</sup> #398.  
Jws. all still ♂-type. One has a green acorn atop Gate tree now.

842 ⑤ j y-Blk/M #397, ⑥ 2nd ub ♀. ⑦ ♂ ub.

847. Somebody's doing some Carrick-ing around here (by/in Gate tree).

901. ⑧ DG/M/ ~~not likely~~ #60. This is the bird with the apparently hurt right leg.

\*

907. AHM. ⑨ A 2nd ♂ ub, for sure. Also ⑩ ♂ or-wh/or #258.

920. ♂60 now using his right leg at last. I guess it's ok after all.

945. There haven't been any babies in view here for almost an hour now.

The birds are actually getting acorns from several Valley Oaks near the Gate itself along the creek.

1000. Wandering off. Too many unbanded birds here. Nonetheless, this watch was o.k., especially considering that the babies disappeared almost immediately. I will need another try, however.

18 September

Pan found ♂60 dead by the Gate, fairly fresh, where he had apparently been hit by a car. This was indeed the bird with a bad leg (his color bands had grown onto his tarsus), which may have been a contributing factor.

15 October

1630. Watching. ① ♂ M/Red-DB #369. ② ♀ ub.

1700. A stray Carrick from Gate brought ③ ♂ or-DG/or #238 and shortly thereafter ④ ♂ or-wh/M #258 and an ub ♀.

1712. ⑤-⑥ 2 ub ♂♂ together in unbeatable light. Both for sure.

Still some occasional Carricks from somewhere.

1715. Going over to check the side of School Hill

18 October

It's time to change everything around here in a vague attempt to put the extra birds that have shown up





1977 Walter D. Koenig

10

Melanerpes formicivorus

Gate

Hastings Reservation

(18 October) in order. The present listing is given on the back of this sheet, along with the changes I'm making, which are, basically, to ① assume that the 2<sup>nd</sup> unbanded ♀ that's now here (and has been for some time for sure) fledged here in June 1975 (rather than mysteriously appearing in fall 1975); and ② to further assume that the 2<sup>nd</sup> unbanded ♂ that's here now (and was first definitively observed on 23 November 1976 after one other unbanded ♂ was caught in March 1976) also fledged in June 1975. This gives this group 5 babies for 1975 - a not unreasonable guess as to how many they in fact fledged. Rather less likely is the further supposition that 4 of 5 of them still exist at Gate, but it still seems like a ~~not~~ relatively harmonious solution to the problem of accounting for all the birds here. If only I could catch some!

Another change I'm going to do is to view the takeover of Gate territory as just that: an expansion of Group Westgate to include Gate; not a "movement" or "abandonment" of the Westgate territory by those birds and a move to "Gate". Thus, on my list, this group will now be "Westgate" again rather than "Gate".

29 October

1330. Going to try and see some of the babies here. ① ♀ Vel-De/4-De #397,

1345. ② ♀ ub. Light not so good.

1400. ③ ♂ M/Red- #396. These birds are mostly up the valley a short ways (past the Gate on the Haystack Hill side) apparently getting acorns.

1405. ④ ♂ O. De/or #238.

1415. Leaving. Things aren't working out. Come back in the morning.



## Westgate [→ Gate] History

### Group founders (March 1975)

- ① ♂ 58
- ② ♂ 60
- ③ ♂ u.b. (521)
- ④ ♀ u.b. (522)

### Fledged 1975

- ♂ 520 [→ 258]  
♂ 590 [→ 238]  
♂ 589 [→ 242]

### "Present"

♀ u.b. (574) Nov. 1975

### Changes made 18 October 1977

- ① ♀ u.b. (574) origin changed to "Fledged at Wiate June 1975"
- ② Yet another ♂ u.b. (620) added as a 5<sup>th</sup> bird fledged June 1975.

1977

Walter D. Koenig

11

Melanerpes formicivorusGateHastings Reservation30 October

1130. Back to try and get some more babies.

1140. 2 ub ♀♀ together in Gate tree.

1150. ③♂<sup>Blk-wh(n)/Blk</sup> #395. Third (of 5) baby.1153. A Sharp-shinned Hawk circling overhead sent ♂<sup>Or-wh/or</sup> #258 and a 2<sup>nd</sup> ♂ straight into holes in the Willow ('77 nest tree)1202. ⑤♀<sup>Y-B/M</sup> #397.1212. ⑥♂<sup>Or-DB/or</sup> #238.

1230. ⑦♂ ub.

1235. 5+ birds together in Gate tree inc. ⑧♂<sup>Blk/DB-wh(n)</sup> #394, ♂238, ♀ub, ♀397.1300. Pretty sure I had a 2<sup>nd</sup> ub ♂ (9)

1315. Things pretty slow now. Leaving. I did well, however, seeing everybody except j398 (who might, I suppose, be gone), and ♂58, who definitely may no longer be extant, I fear.

13 November

1500. Watching.

1520. Birds certainly aren't cooperating over here!

19 November1130. Sat here awhile. Managed to see ①♀<sup>Blk-Blk</sup> #397. ②♀ub.1200. In WGate tree: ⑤♂<sup>M</sup> - for sure; no other band on left leg seen.

This was most likely ♂58, finally (the only alternative is j398).

1230. At least 7 birds on side of School Hill above the mailboxes.

♂<sup>Wh/DB</sup> #394 seen. Leaving.3 December1145. Finding birds, especially on the side of School Hill (①♂238, ②♂258) and now just below that along Robertson Creek: ③♀<sup>Y-B/Y-B</sup> #397, ④♀ub, ⑤♂<sup>LG/LG</sup> #58 for sure.1205. Intruder: ♂<sup>Wh/M</sup> #278 from Finch here, being chased.

1217. ♂278 still in the area.

1225. Moving over to main area.



1977

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12

Melanerpes formicivorusGateHastings Reservation

(3 December)

1230. By the Gate: ♂♂ <sup>LG-DG(n)/M</sup> apparently (!) #395.1235. Back in Sycamore along Robertson Creek (right at confluence)  
⊕ ♂ M/R-DB #396.1310. There's a hole in a willow up about 50m in from the Gate that several birds are interested in. One is apparently ♂ Red-DG/Red - #238, except that I have excellent light and the Reds look Red - not Orange in the least. ~~(But I don't know if it's a Red or a DG)~~

1312. This must be a water hole - a flock of bushtits are now going inside it!

1315 ♂ <sup>Yel/DB-Yel(n)</sup> #394 now near this hole.1330. Every body seems to be elsewhere now. In any case, this is now the 2<sup>nd</sup> time I've seen essentially everybody except j398, who I presume is gone. Fortunately ♂58 is clearly alive and well. Just as I said that a bird came by who seemed <sup>to</sup> be a ♀ and have a M band on her lower left foot! Maybe I better not be quite so hasty.

1337. Now 5+ birds atop Gate Sycamore, inc. ♂♂ ub, ♂394, ♂258, ♀397.

1400. Leaving. One more watch to be sure, but j398 is most probably gone, I should think.

14 December

An ambush set up at the '77 willow nest hole failed. At least 6 birds had been roosting there.

15 DecemberCounted stores: Gate tree: 596 } 1353  
Wicket tree: 757 }19 December

On our way out to town Pam and I came across a dead, unbanded ♂ AW hung up on the fence just up along the road from the Gate sycamore. Inquiries failed to come up with who found it there, but apparently some road crews had been working up along the road and

No  
only other  
possibility  
is ♂382  
from R3 (I  
actually do  
think this is  
who it probably  
was).



1977

Walter D. Koenig

13

Melanerpes formicivorusGateHastings Reservation

(19 December)

someone from there might certainly have found him. Unfortunately, this also means I can't be sure of where he came from, but I will assume that he is one of the unbanded Gate birds and that he had been hit by a car.





1977 Walter D. Koenig

1

Melanerpes formicivorus

Warp 5

Hastings Reservation

5 May

1615. A bird flushed out of the little granary here as I approached; looking carefully I found that the big limb that used to have the nice roost hole in it has fallen, but that there's a new hole in the tree which may very well be it. There are still stores here as well, by the way.

6 May

1230. Came up with the ladder and checked the new hole, which is only a couple inches deep and not at all suitable for nesting.

6 June

1210. Walked up, not seeing anybody. Amazingly enough there are still a few acorns stored here, though. Watching.

1220. 2 birds greeted each other uphill from where I was sitting. I proceeded to walk around, but didn't find any promising holes. The group certainly still exists, at least.

1315. I heard a few <sup>more</sup> birds in the area at 2 times, but this area is quite difficult to work, or even to know where to begin in. Unless I stumble on the nest by sheer accident I suspect I'm just as well off lumping this group in with the essentially unfollowable ARF, too group.



1977

Walter D. Koenig

1

Melanerpes formicivorusRoad 1Hastings Reservation13 January

1150. ♂ PRW #183 gave chase to an intruding ♀ coming over from Finch area; see Finch notes.

Picked out 25 acorns from the Valley Oak; the rest will have to come from the sycamore. Before dusk I took 35 more from the nest tree to make a total of 60.

14 January

Counted stores: Nest tree: 670

Misc (by creek): 166

Main tree: 1460

} 2296

4 February

1045. Watching from hide.

1107. ① ♂ DBRW #222. ② ♀ Red-WH/LP #180. ③ ♂ PRW #183.

④ ♀ WH/Red-LG #293.

1140. ⑤ ♀ Red-Yel/DG #69 hawking by creek.

1146. ⑥ ♀ Red/DB-WH(n) #295. ⑦ ♂ Red/ #294 hawking in perch tree.

1245. Leaving. Got just about everybody, I suspect, except for the unbanded birds.

9 February

Purge: ① ♀ 181. Last seen 9 August 1976, gone by 15 September

→ Disappeared about 27 August ± 2 weeks

② ♂ 182. Last seen 9 August 1976, gone by 15 Sept.

→ Disappeared about 27 August ± 2 weeks.

8 March

1330. Counted stores: Maintree: 973

Nest tree: 370

Misc: 147

} 1490

5 April

900. ~~Small~~ Revolution of some sort ongoing between here and Finch with more activity here. Watching.

① ♂ Tan-Red/Tan-Red #282 (Finch) seen nearby when I arrived on the side toward Finch. ②, ③ 2 ub ♀♀ ub above the granary chasing each other. Lots of wakas, garricks, etc.



1977 Walter D. Koenig

2

Melanerpes formicivorus

Road 1

Hastings Reservation

(5 April)

④ ♂ DBRW #222 in granary ⑤ ♀ R-W-R/LP #180 in granary;  
also a (nother?) ♀ ub. ⑥ ♀ Red/DB-WH(W) #295.  
⑦ ♂ Red/DB-Yel #294

905. 1 ♀ ub more or less with everybody else in the granary.  
The ♀♀ are working double time chasing other birds, most of  
whom seem to be other (ub) ♀♀.

Whenever birds are together long enough to be seen in the  
granary they are all group members.  
⑧ ♂ PRW #183.

Some serious chasing is taking place involving 5+ birds  
at a time. Lots of activity in scattered pockets all over  
involving 20 or more birds.

915. Up above the granary 22 birds are hawking  
inc. ⑨ ♀ LGRW w/ Purple (!) <sup>name-DB/M</sup> #339 (caught at PO Hill!)  
and ⑩ ♂ ub plus 2 or more ub ♀♀  
⑪ ♀ Or-LG/DG #69 in granary.

925. ♀339 is doing her share by chasing other ♀♀ out of  
"her" tree up above the granary.

930. Again, one of the ub ♀♀ is with the others in the granary  
and will be assumed to be the resident. I have not quite so  
much reason to be sure of the ♂, but one ub ♂ was just in the  
granary.

As at 1500<sup>in</sup> May '75, there are little "foci" of activity  
with birds "defending" each "tree" and chasing out others.  
In this case, the residents are in firm control of the granary.

935. This time I believe the ♂, as he was sitting with 3 others,  
2 of whom then went off to chase somebody else.





1977

Walter D. Koenig

3

Melanerpes formicivorusRoad 1Hastings Reservation

(5 April)

940. Birds are mostly hawking still (and slightly overheating doing so). The residents, during a rare free moment, do peck briefly at an acorn or two.

952. There are 2 ub♂♂ and a ♀ more or less peacefully sitting/ hawking in the tree just up from the hide. It's hard to tell, but I think they're getting flying ants (and lots of them, too!)

1000. If ♀♀ 72 and/or 293 are still here (which I doubt), neither are hanging out at all around the granary, which I've been watching pretty steadily. I'm now going to check some of the activity down around the nest tree before returning to get some nets.

1015. Down in the field next to (north of) the nest tree, about 8 birds are busy chasing each other. After 10 minutes I saw one ub♂, but everyone else I saw ~~was~~ was an unrung ♀. This dispute is more or less centered around one of the (dead?) sycamores by the creek with a roost hole and a few storage holes (empty) in it.

1145. I now have 2-15' nets in the main granary and 1-30' net over in the sycamores described at 1015 above. Activity is still strong in all areas.

1200. 2 ♀♀ caught by the creek: #351 and 352.

1230. ♂ub caught by creek: #353

1400. ♀ub (#354) and ♀180 caught by granary.

Things seem slower now; activity is tapering off.

1430. Another ♀ub #355 by the creek.

1510. With the nets finally empty, I'm back in the hide again





1977 Walter D. Koenig

4

Melanerpes formicivorus

Road 1

Hastings Reservation

(5 April)

1520. ♀69 in perch tree by the road with ♂294 and  
②♀<sup>M/Red-LG</sup> #293, here after all. ♀295 just came to  
main granary. ♂222 here also.

1530. There is still a lot of calling down somewhere  
in the vicinity of the creek.

1545. Things still happening, but not here. Going off.

1700. Taking down nets. Birds are mostly over up the  
side of Poison Oak Hill where there's still some sun.

Purge: ♀72. Last seen 25 September 1976,  
gone by 17 November (when I put up the captive);  
Disappeared about 20 October 1976 ± 1 month.

6 April

830. One chase seen soon after arriving, but there  
seems to be little or no activity away from the storage area.  
So far I've heard more calling over at Finch.

837. Another brief chase: 6 or so vs. 1 (5 of the 6 appeared  
spontaneously out of nowhere).

838. ①♀295 sitting in granary with → ②♀<sup>YLLW</sup> #354, who  
was not chased. Maybe she is the resident adult (hope, hope!)

841. ③♂294 and ④♂222 in granary; also ⑤♀<sup>W/R-LG</sup> #293.

848. ♀354 back peacefully in granary with 3-4 others  
including ⑥♂183. I think you can safely replace the  
unbanded ♀ with this bird (♀354)

855. Though the action is certainly non-negligible here,  
more calling (garricks, waleas, etc) seem to be coming from  
Finch right now, where I'm going to check now.

856. ⑦♀180 here; ♀354 still in main tree with every-  
one else.



1977

Walter D. Koenig

5

Melanerpes formicivorusRoad 1Hastings Reservation

(6 April)

900. There is a fair amount of calling and activity here, but relatively little chasing.

902. ♂ ♀ LG-or #69. That's everybody except the unbanded ♂.

Counted stores: Maintree: 744  
Sycamore: 417  
Misc: 77 } 1238

Several chases and lots of calling continues, though still not nearly as vigorously as yesterday.

7 April

915. There is still <sup>an</sup> unusually lot of activity both here and at Finch, but things are much calmer here than during the prior 2 days.

18 April

1230. In contrast to Finch, things are quiet here. Nobody seen in any holes.

22 April

Several birds around the sycamore nest tree, but none apparently "in" a hole as yet.

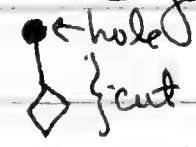
27 April

1900. A bird in the hole just above the '76 nest hole.

1 May

1005. A bird near the same hole as on the 27<sup>th</sup> again.

3 May

1000. I gave in to curiosity and cut open the hole with a  T-4 bacteriophage ~~on~~ sawing effort. There was nothing inside, however. In another couple days if something doesn't gel here I'm going to have to break down and watch.

4 May

1845. Bird in the hole I opened yesterday. I should perchance check the wretched thing tomorrow again.

5 May

1500. With a bird in the hole again, I went up and looked, but there was still nothing in it.

1630. Walked by the sycamore and even the tree up at



1977

Walter D. Koenig

6

Melanerpes formicivorusRoad 1Hastings Reservation

(5 May)

Valhalla but nobody was home in any of the holes.

6 May

1200. Bird in the hole again. If it weren't pouring rain(!) I'd go up and check again.

9 May

1145. Bird in hole. It's still raining, but I'm going to have to go up and look.

1215. I did and it was worth it after all: 6 big, healthy, fresh eggs! Since I last went up on 5 May at 1500 (4 mornings ago) this is for sure the product of 2 ♀♀.

10 May

840. Watching nest hole. ♂ looking out.

854. ♂ finally flew out of hole.

855. ① ♀ YLW #354 flew to and entered hole.

910. ② ♂ ub came to hole, ♀ left, but the ♂, possibly seeing me, left also rather than going inside.

940. Hole still empty. Raining again. Cold. I'm leaving.

1020. Back again. Now watching granary from hide.

1035. A bunch of birds suddenly converged in the granary: ① ♀ 354, ② ♂ ub, ③ ♂ DBRW #222, ④ ♀ +la-or #69, ⑤ ♀ R-W-LP #180, and ⑥ ♀ M/ #293. All the ♀♀ are here.

1045. ⑦ ♂ Red/DBRW #294. Birds hawking when sun came out briefly.

1105. ⑧ ♀ Red/DBRW(n) #295.

1108. Now that the sun's gone they're back to eating acorns.

1130. Raining again.

1137. ⑨ ♂ RW #183. That's everybody, and there are apparently no new or different or unexpected ♀♀ here.

1140. Everybody filling up on acorns as it starts to rain again.

1200. Time to go check the hole.





1977 Walter D. Koenig

7

Melanerpes formicivorus

Road 1 Nest Record

27 April 1900

3 May 1000

5 May 1500

9 May 1230

[6 eggs laid in a maximum  
of 4 days]

10 May 1300

~~25~~ May 1515

① Bm-Or

16.5/12.0

35.1 19.7

103/22.5

77.8 23.8/75/51

② LB-Or

16/11.0

31.9 18.7

102/22.1

86.5 23.8/76/50

Hastings Reservation

Bird first seen around nest hole

Hole opened; nothing.

Bird in hole; hole opened; still  
nothing.

Hole opened! 6 eggs:

① 25.7 × 20.5

② 25.3 × 19.8

③ 26.0 × 19.4

④ 27.1 × 20.3

⑤ 26.5 × 19.1

⑥ 28.2 × 19.7

contained  
infertile 8mm embryo

contained 6mm  
infertile embryo

Still 6 eggs.

4 babies, 2 eggs. (egg ② infertile  
egg ④ ?)

③ Pink-Wh (n)

13/10.7

29.0 16.3

98/21.3

83.5 23.1/71/48

④ DB Blue-Mauve

10.5/9.1

20.8 13.5

89/20.8

78.8 22.8/62/44

~~25 May 1515~~

25 May 1515

12 June 1400



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Melanerpes formicivorusRoad 1Hastings Reservation

(10 May)

1300. Up at the hole, there are still 6 eggs.

12 May

1500. Bird in hole.

13 May

1915. 2 birds in hole. Went up: still 6 eggs.

20 May

1020. Bird in hole.

25 May

1515. Opened hole: 4 babies, 2 eggs. The babies were measured, etc.; their eyes have not opened yet and the feather papillae on the most developed have not quite broken the skin yet. The 2 eggs that failed to hatch were both removed.

Both were later examined, and both did contain forming embryos - 1 6mm in length and the other 8mm. So, all 6 eggs were at least fertile.

8 June

1820. Several birds in the nest area; bird in nest hole; may have flushed a bird from the '75 late nest hole also.

12 June

1400. Banded the 4 babies as #406, 407, 408, and 409.

13 June

1000. Counted stores: Valley Oak 382  
Nest tree: 251 } 633

13 July

1440. Watching. ♂ PRW #183 and (2) j Or/DP #409 seen on way in.

1505. ♂ FLW #354 sapsucking here near the granary.

1510. ♂ BRW #222 also here sapsucking

1513. j 409 in perch tree by road with a ♀.

1523. ♂ Red/DB-WH (w) #295 hawking in perch tree. Joined by ♂ ♀ M/ #293.

1530. 2 more babies appeared with j 409 in granary: (7) j DB-LB/M #406 and (8) j LG-Brn/M #407. One to go...

1532. These 3 babies all together in granary begging from ♀ 354.

1535. Thought I got a glimpse of j m/ [who would be 408] but not sure.

1550. ♂ ♀ 406 and another hint of j 408: ♀ (!) LB/Red-Yellow (?) (seen only very briefly - colors ~~not~~ better than sex!)



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Melanerpes formicivorus

Road 1

Hastings Reservation

(13 July)

1600. Here we go: ♀354 feeding @ jn/Bk-Yel #468.

1630. ① ♀ Or-Yel #69 in there sapsucking along with one other than ① ♀ R-W-R/CP #180.

1639. ♂ub just silently displaced an intruder from the granary.

1650. Leaving. A good watch (12/13), and given the general visibility of everyone I suspect that I have no reason to believe that the 13<sup>th</sup> (♂294) was hiding out on me.

Counted stores: Main Tree 206 }  
Nest tree: 175 } 381

31 August

5 September

Still have some old acorns, at least in the nest tree.

1520. Watching from hide.

1610. Hum. Dull indeed. Going out to walk around briefly and to check acorns.

Stores: 66, all in the Sycamore nest tree. Main storage tree appears empty; they have not run entirely out, however.

1635. A ♀ (probably ♀295) landed briefly in the perch tree down by the road with a large Black Oak acorn.

Several birds are <sup>hanging</sup> down next to the road in the field NW of the nest tree, but they are all being quite wary, and I don't see any point in pushing it when storing season is so close.

1650. Leaving.

15 September

1615. ① ♂ PRW #183 and ② ♂ DBRW #222 + others up in perch tree down past the nest tree on SW side of road. Watching storage tree again.

1645. Humbug.

1730. Worthless. This is the pits. Wait until storing is on!

10 October

1605. Watching. Earlier I saw ① ♀ Or-Yel #69 in the nest tree.



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Melanerpes formicivorus

Road 1

Hastings Reservation

(10 October) 1635. Leaving. These birds are definitely beginning to piss me off with their total lack of cooperation.

15 October 1600. Birds still very unhelpful - going across PoisonCale Ridge & other unpredictable spots. Did see ♀69 again, but that's it.

16 October 930. Watching from hide. It may be a long vigil, but I've got to see some birds here.

937. ♂<sup>R-W/Light</sup> #180 (heavy tail spots still!) came by briefly.  
②♀<sup>Or-Lg/Dk</sup> #69 with an acorn to store. ③♂<sup>ub</sup> also to store an acorn.

948. ♂<sup>Y/W</sup> #354. ⑤♀<sup>wn/or-Lg</sup> #293. All birds coming to store.

958. ♂<sup>Or/Dk-Light</sup> #294. Not close, but I'm still fairly sure.  
→ Seen better later on. He's here.

1013. ♂<sup>DBRW</sup> #222

1019. ♂<sup>M/Red</sup> #409. Finally one of the babies.

1042. ♂<sup>Dk-Lg/Dk-Lg</sup> #406.

1045. ♂<sup>LB/Blk-Yel</sup> #408. Great! 3/4!

1052. Wahoo! ♂<sup>Lg-Brn/M</sup> #407!

1130. Leaving. Not bad - got nearly everybody. Obviously the morning is the time to watch here.

1155. Down in the field by the nest tree is ♂<sup>PRW</sup> #183. That gives me everyone except ♀295.

4 December 1115. Watching with the captive caged up in the main granary.

1121. ♂<sup>M/Red-Lg</sup> #293 arrives w/ acorn; gives several low

karrits + karrit-cuts. Eyeing the captive suspiciously.

1124. Now about 6' away, picking dead leaves off the tree.

1125. ♂<sup>Red/DB-WH(n)</sup> #295 here now. Also ♂<sup>Or/Dk</sup> #69. Some karrit-cuts

Captive still being eyed suspiciously but no attacks.

1127. ♀293 now making aggressive passes at the cage. (x2)

1129. 1-2 more birds landing; quite upset - more karrit-cutting.





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Melanerpes formicivorus

Road 1

## Hastings Reservation

(4 December)

1134. ♀293 makes several more close passes at the cage.

1136. 9293 hits cage. 1137. 7293 lands on cage

1137. ♂ <sup>(4)</sup> Por/Odwin H 294 here now, quite upset. Also ♂ <sup>(5)</sup> B16/LP #354

lots of harriting. (6) ♀ R-W-R/M #180. (7) ♂ LG-Bm/M #407. No one on cage now but all eyeing the captive.

1144. ♀293 makes another pass. ♂ ♀13/81b-4el #408 makes a pass.

♂407 within several feet.

1146. ♀293 on cage again several times.

1149. ♀ 293. sitting on cage. Others interested but noone else has gone to the cage as yet.

1152 ♂ 407 making passes and very barely hitting the cage.

Clearly 20 being 7293 at the moment (both are at it).

1154. ♀ 293 consistently lands on the cage; ♂ 467 goes by it but doesn't land.

♀354 also here, flying back and forth several feet above the cage.

♀408 2' below the cage, sitting.

1158. ♂ 407 lants on cage. @ ♂ De-La/De-La #406 here now.

♂407 and ♀293 still the 2 persistent harassers.

1201. An alarm call puts everyone on their guard.

1203. Both ♀293 and ♂407 on cage again, just sitting and pecking at the  
captive. ♀354 and ♂406<sup>(?)</sup> higher up in the tree. ♀408 here.

1206. ♀293, ♂407 still on cage.

1210. ♀354 definitely interested, but the other 2 birds are pretty much monopolizing the cage. Leaving. (Both still on it!)

16 December

Counted stores: Main Tree: 1966

Sycamore nest tree: 1653

Misc. by creek: 401

4020

No stores up at Valhalla.



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Melanerpes formicivorusFinchHastings Reservation13 January

1040. ♂ 66 in main Valley Oak working stores. Nobody else in the near vicinity.

Counted stores: Sycamore: 462  
Valley Oak: 1551  
Nest/Misc: 59 } 2072

1150. A bird sitting in the Valley Oak perch tree along with at least 2 others was ♀ WHRW w/ Black Square/Diamond (new style, small) bands? Light (maybe LB) / . She sat up here peacefully for 10-15 minutes before flying off to R1, where she was immediately displaced. [Maybe # ♀ 326?] \*see below

1155. ♂ WH/M # 278 in Valley Oak perch area.

1203. ♂ Gn-Blk/Gn-Blk # 63 here. Down at the Sycamore, somebody just displaced a bird and gave brief pursuit.

Took a sample of 60 acorns out of the Valley Oak, replacing 15-20 with large lobata acorns.

1 →

The intruder was ♀ 308 from Lower Haystack.

14 January

1045-1115. ♂ 66 and 278 seen here again; birds still on W. side of road.

28 January

930. Watching; captive up in Qlobeta granary.

950. ♂ Red/ -wh # 66. Birds way up toward ARF. Nobody at granary yet.

1010. There are several AW's way up the canyon here almost at ARF, but for all I can tell they might just as well be a different group.

1035. 1 bird landed in granary near the captive.

1040. Bird flew off without approaching him.

1045. ♂ Gn-Blk/Gn-Blk # 63, plus 2 others (1 probably an intruder) in the perch tree.

1055. Several others arrived; displaced intruder, including



Melanerpes formicivorusFinchHastings Reservation

(28 January) ③ ♀ FM / DBLue-LP #232 and ④ ♂ ub.

1110. Leaving. Will try again later. Even the captive wasn't enough to get them excited this morning.

2 February

1310. Watching. Several flushed as I arrived.

1320. ① ♂ DP/LP #66 working stores in main granary.

1326. ② ♂<sup>wh</sup> WH/DB #278 here. ③ ♂ 63 also.

1412. ④ ♂ LP-Yel? / Darkish-Lght #67 working stores.

1425. Leaving. I'm beginning to get the impression that a lot of birds have disappeared from here in the last several months.

1500. Way up on the ridge of Poison Oak Hill far above Finch (~~DB~~ almost as far south as R3) are several birds, including ♀ Yel/DA-Yel, apparently #232.10 February

1500. Watching. Captive up in Valley Oak granary.

1525. ① ♂ DP/LP #66 finally returned to the granary. No interest in captive as yet.

1600. That's it. ♂66 still sitting detachedly in granary, others nowhere to be seen.

14 February

1405. ① ♂66 here as usual.

1425. ② ♂63 flashed in, got a stored acorn, then flew off to eat it.

1445. Somebody new at last: ③ ♀ LG-Brn/LG #280.

1505. ④ ♂ ub and ⑤ ♂<sup>wh</sup> WH/M #278. Getting there, at least.

These birds are showing a lot of interest in the holes up in the nest sycamore already, landing at them and sitting at their edges several times in the hour I watched.

15 February

900. Birds in perch tree up on the bluff and beyond. ♂66 there

930. Several briefly joined ♂66, inc. ② ♂<sup>M/Red-Tan</sup> M/Red-Tan #282, ③ ♂<sup>wh/DB</sup> WH/DB #278.

935. ④ ♂ ub, eating acorn.





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Melanerpes formicivorusFinchHastings Reservation(15 February)

1020. ③ ♀ LG-Brn/LG #280.

1030. Leaving. I did pick up one more bird at least (♂282).

It's getting down to where I strongly suspect the others are indeed gone. (♀231, ♂233, and ♂279)

8 March

1300. Counted stores: Sycamore: 285

Valley Oak: 1297

Small syc. by nest tree: 55

} 1637

18 March

1120. Watching. 3 birds came to nest tree to flycatch: ① ♂ M/Red-Tan #282, ② ♀ Yel/DB-Yel #232, and ③ ♂ Red #66.

1145. Birds wait silently while 2 Cooper Hawks fly over. (Hiding on underside of limb top).

1150. ④ ♂ WH-LB #67 and ⑤ ♂ ub. Also a tail-spotted ♀. One of the ♂♂ eating an acorn.

1210. Several birds here now, hawking and eating acorns. ⑥ ♂ WH/M #278. ⑦ ♀ LG-Brn/LG #280.

1240. Lots of birds still around, mostly hawking but occasionally several spend a few minutes eating acorns. ⑧ ♂ LG-B/LG-B #63.

1300. Leaving. Birds pretty quiet now. These 8 are most likely it.

20 March

Purge:

♂233. Last seen 24 September 1976, gone by 18 October

→ Disappeared about 6 October 1976 ± 1 week.

♀231. Last seen 16 July 1976, gone by 18 October

→ Disappeared about 31 August ± 1 month

♂279. Last seen 3 November, gone by 15 February

→ Disappeared about 25 December 1976 ± 1 month.

5 April

900. ♂282 seen near R1, attracted by the revolution there.



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Melanerpes formicivorus

Finch

Hastings Reservation

6 April

855. Lots of calling all over here, even more so than at Road 1 right now. ① ♀ M/DB-wh #232 seen from the road.

907. ② ♂ Tan-Red/Tan-Red #282 and ③ ♂ wh/DB #278 in perch tree.

910. A bird: M/LP LP/DP (?) wha? Don't know who this was.

912. ④ ♂ Grn-Blk/Grn-Blk #63 in sycamore storage tree.

915. ⑤ ♀ LG-Blk/LG-? #280

922. ⑥ ♂ Red-Yel/Blk-LG #67 hawking here. Though there is still a fair amount of activity, I haven't seen a chase yet; perhaps the excess calling has merely been generated as a by product of the activity at Road 1 over the last day +.

926. ⑦ ♂? Pink-wh probably #66.

930. Leaving to count stores.

Counted stores: Maintree: 1059 }  
Sycamore: 228 } 1287

Still some activity (1030), but relatively quiet.

18 April

1230. Lots of activity here centered at the moment around the sycamore storage tree.

1300. Here's the scoop, best I can tell: this is a revolution similar to that at Road 1 a couple weeks ago—that is, no one is gone, so these are birds apparently just plain trying to bully their way into the group. All 8 known group members were seen well (#63, 232, 66, 67, 549, 278, 280, 282); ♀280 was over by herself in the Valley Oak granary most of the time, but all others were along the creek from the sycamore up a few trees battling it out with the intruders.



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Melanerpes formicivorusFinchHastings Reservation

(18 April)

As for the invaders, they probably number 4-8 birds; all that I saw for sure were ab ♀♀, but there may have been others fighting elsewhere which I wouldn't have seen.

Of special interest, a good copulation was seen at 1245, the ♂ being #66, the ♀ not identified for sure.

Lots of Garricking <sup>group</sup> wakas, etc., as one expects in this situation.

1310. Flash! One intruder identified: ♀ Yel RW (with ♂) banded light / M #339 (banded at PO Hill, seen 2 weeks ago at Road 1 during their revolution). The invaders are, as expected, more or less concentrated on the periphery (in this case up by the Valley Oak perch tree up the bank) while the residents are mostly based down here in the sycamore storage tree. Activity is nearly all on this side of the road.

22 April

1630. No one found in any holes; activity is back to near zero level.

1 May

1010. Holes checked. Several birds in the vicinity, however.

2 May

1200. Found a bird in a rather cryptic hole rather low ~~up~~ in the sycamore nest tree, which I promptly opened, and which held 5 fresh eggs.

3 May

1045. Bird in hole.

6 May

1230. " " "

1300. Returned, went up, and checked the nest, which still has 5 eggs.

10 May

1230. Bird in hole.



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Melanerpes formicivorusFinch Nest Record

2 May 1200.

6 May 1300

19 May 1500

2 June 1700

Hastings Reservation

Bird first seen in hole (i.e. hole first noticed); opened; 5 eggs:

① 24.5 × 19.3

② 26.4 × 19.2

③ 24.6 × 19.2

④ 24.7 × 19.3

⑤ 26.3 × 18.6

(all still translucent)

Still 5 eggs.

5 babies, not measured.

All 5 present, banded.

① 385

② 386

③ 387  
LB-Or RL

④ 388

⑤ 389  
LB-Or LL

2 June 1700

90.8 <sup>80/21.2</sup>  
23.5/51/3287.4 <sup>84/21.5</sup>  
24.5/56/3584.2 <sup>69/20.8</sup>  
23.4/41/2783.4 <sup>83/20.5</sup>  
23.1/48/3589.5 <sup>79/20.3</sup>  
23.5/50/33





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Melanerpes formicivorusFinchHastings Reservation12 May

1500. Bird in nest hole.

16 May

1010. " " " " . Plenty of acorns remaining.

19 May

1500. Went up to the nest, finding all 5 potential babies doing fine. Their eyes are not quite open yet and their papillae have not yet broken the skin. I put bands on 2, one being what seemed to be the smallest (Or-LB on R leg).

2 June

1800. Banded the 5 babies as #385 to 389.

8 June

1825. Noone in nest hole (except babies), but birds were in the '76 nest hole and also in a hole above the road in the sycamore storage tree.

13 June

930. Counted acorns: Sycamore: 36  
Valley Oak: 526 } 562

9 July

1820. Watching. 3+ birds flushed from Nest tree as I arrived.

1830. 3 adults back in various contexts: ① ♂ Ret/LB-wh #66;

② ♀ LG/Bm-LG #280; ③ ♂ wh/DB #278.

1834. 1 baby in nest tree: ④ ♂<sup>or-lb</sup> M/or-DB #389. ⑤ ♂<sub>ub</sub> with an acorn in nest tree.

1840 ⑥ ♂ M/DB-yel #232.

1850. Bunches more: ⑦ ♀ M/Ret-Tan #280; ⑧ ♂ Gn-Bk/LG-B #63 feeding one of the babies; ♂66 feeding ⑨ J DB-LG(n) / #386; also begging is ⑩ J M/DB-wh(n) #388; both ♂♂ feeding the babies acorn bits in the Valley Oak granary. There's a lot of interest in the '75-76 nest hole with birds in it regularly.

1905. Evening shadow has just consumed the main area here, thereby obscuring things. Nonetheless, 10/13 birds in 45 minutes is doing quite well. One more good watch night to it.

11 July

1525. Watching

1528. Several birds atop nest tree: ① ♀ 232; ② ♂ 278.



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Melanerpes formicivorusFinchHastings Reservation

(11 July) ③ jM/or- #389; ④ ♂66.

1536. Wow! Here's the scene: ♀(232?) atop the nest tree softly karrit-cutting; j389 at a hole just below here; ♂66 at the '76 nest hole. Suddenly several alarm calls go out, by the ♀ and from 1-2 other AW elsewhere. The ♀ flies down to one of the holes. A Cooper Hawk lands ~~on~~ the horizontal limb, then appears to grapple with / or attack someone, who if true could only have been the baby (j389). I unfortunately did not see this through the scope so I could not be sure what he did. In any case, the hawk disappeared just below the limb so I go tearing off to the scene to look for any remains (i.e. a mortally wounded AW) but found nothing.

Everything now very quiet!

1553. ♂66 still here; also ♀232. Both now near the nest tree karrit-cutting.

1615. The birds haven't recovered yet - no one here; all quiet.

1656. These birds are still touchy as hell. Now 1 ♂ in nest tree: ⑤ ♂wn-yd / Blk-LB #67.

1707. ⑥ jDB-wn(n) / Red #388 at a hole in the nest tree.

1715. It's clear I'll have to make another go at it. There are still 2 babies here (at least), who are now in the nest tree. But if j389 isn't seen again, I think his demise will be traceable to this afternoon.

1717. ⑦ jLG-DG(n) / M #386 here. Also ⑧ ♂ub.

1725. Another general alarm sent everybody to holes. I'd best come back someday when the hawks aren't zeroing in on these poor blobs.



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Melanerpes formicivorusFinchHastings Reservation12 July

1740. Watching.

1755. ①♂ub. ②♂278. ③♀280

1810. 6 adults in nest tree now but no babies!

1814. Finally 1. ④jDk-Lght #386. Everybody is still being exceedingly wary here - that Cooper Hawk really shook them up yesterday.

1835. There's a Cooper Hawk calling somewhere in the valley here - their paranoia is well-taken, I guess. ⑤♂67.

1840. ⑥jDk-wncn #388 begging from and being fed acorn bits by ♂ub.

1845. ⑦♀282 and a breakthrough: ⑧jDk-Lght/Drk #387. (Not an inspired look at the bands, but the pattern was definite and it was a juv.)

1851. ⑨♂63. ⑩♂66.

1910. Sun just went down throwing the main area here into shadow.

Looks like j385 is gone for sure; j387 is most likely here; j386, 388 are here for sure, and j389 was here for sure up to yesterday, but may very well have been abolished as feared.

1700. Counted stores: Main Tree: 435 }  
Sycamore: 24 } 459

1 August

1530. Watching with the captive in the main granary as bait. No one in the vicinity.

1615. The birds are all keeping behind the storage areas back in the forest - none have come out to investigate yet.

1630. The birds here are staying to themselves (as they did last year when I tried this). Weather conditions are on the odd side as well (threatening - thunder!). I'm going.

31 August

1435. Watching.

1446. ①♀16-Brn #280.

Seems like there are no other birds here with this pattern to get confused with!





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Melanerpes formicivorus

Finch

Hastings Reservation

(31 August)

1455. ♂<sup>WH/M</sup> #278. ♂<sup>Yel/</sup> #232. Others hiding around.

1505. ♂<sup>DP/LP</sup> #66 pecking at an acorn.

1520. Intruder chased off by several birds in the granary.

1530. ♂<sup>DB/M</sup> #385. j<sup>DB/DBW(N)</sup> - #385. For sure. Oh well. One has to

blow these things sometimes!

1536. ♂<sup>ub</sup>.

1552. ♂<sup>LG-Blk/LG-Blk</sup> #63. Birds continue to trickle by slowly.

1617. j385 around again; ♂<sup>M/Red-Lght</sup> #282.

1640. I keep running into j385. Where are all the other babies?

So far I've seen birds with both old and new (green) acorns.

1700. I continue to get infrequent but regular looks at various birds, who show no signs of including any of the babies except for j385. Quite odd, if I do say so myself. Obviously I'll have to return for another crack at them all.

Counted stores: 170, all in the Valley Oak, of which 20-25 were clearly new. Many of the others were dark and old-looking, however, giving me no reason to believe that this group had ever run out entirely.

1 September

1645. Several birds flushed as I arrived for a brief watch.

♂<sup>66</sup>, ♀<sup>232</sup>, ♂<sup>282</sup>, ♂<sup>63</sup>.

1656. Finally someone else. ♂<sup>DB-LG(N)/M</sup> #386.

1730. Leaving. Got one more, at least.

5 September

1500. While walking from the fence up to R1 I found a pile of AW feathers by a rock which, upon examination, included one intact leg (Black-Yel/Blk) and a F&WS band along with a <sup>partly</sup> feathered skull, parts of wings, etc., which were saved, and which were obviously the remains of j387 from this group. The remains were only



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Melanerpes formicivorus

Finch

Hastings Reservation

(5 September) a few yards in from the road and not really deep enough into R1 territory (ie far enough from Finch) to arouse suspicion. It was, however, much too late to really have any idea about the cause of death, as no fleshy parts remained; but perhaps the very fact that it was all in one place tends to exclude a raptor, which would have eaten most of it, unless of course the bird had died of some mortal wound inflicted by a raptor. In any case, the date of death, though not recent (skin dried, no crown molt) was probably <sup>with</sup> in the last month, based merely on the amount of intact material remaining. In lack of a better criterion, I'll place it  $\frac{1}{2}$  way between 12 July, when I censused and saw him, and today  $\rightarrow$  8 August 1977.

9 October

1500. ①♂ CP-LB/M #67 pecking at a hole in the V granary. Now giving subordinate calls as ②♂ Red/LB-wh #66 comes over. ♂66 > ♂67

1505. ③♀ Yel/Blue-wh #232.

1521. ④♀ DB/M #385.

1535. ③♂ LG-Bk/LG #386, ⑥♀ LG-Bk/LG #280

⑦♂ M/Red-LP #282.

1606. ⑧♂ ub. All birds storing acorns; no sign of any aggression against the juveniles.

1616. ⑨♂ Blk/LG-Bk #63.

1625. Leaving. Eventually most of the birds showed up. Things look fairly grim for j388 and 389, but I'll need another good watch before I can be sure.

29 October

1130. watching. ①♂ JP/LP #66. ②♂ CP-LB/M #67. ③♂ LG-Bk/LG-Bk #63. Just saw a bird (♂66 probably) pick a nice big acorn from the canopy of the main granary -



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Melanerpes formicivorus

Finch

Hastings Reservation

(29 October)

1150. ♂<sup>Wh/M</sup> #278. ♀<sup>Yell/M</sup> #232.

1203. ♂<sup>+DB/DB-WH(W)</sup> #385. ♂<sup>ub.</sup> ♂<sup>Tan-Red/Tan-Red</sup> #282.

1223. ♀<sup>LG-Brn/CG</sup> #280

1225. There's fairly good activity here - the birds are picking acorns largely <sup>from</sup> along the road and storing them furiously.

1236. ♂<sup>DB-LG(W)/Wh</sup> #386. That's it except for the other 2 babies.

1300. Leaving. Saw everyone at least twice, I'd say. ~~The~~ ♂386 was sort of off on the periphery (in the nest tree), but there was still enough activity and I identified enough birds such that I would expect to have seen 388/389 if they were here.

6 November

Purge:

j388. Last seen 12 July, gone by 31 August → Disap. about 6 August ± 2 wks.

j389. Last seen 11 July, on which day he may very well have been picked off by a Cooper Hawk (see Finch notes, 11 July, p.8).

→ Disappeared about 11 July 1977.

27 November

1510. Watching with <sup>the</sup> captive up as insect. (Sun already down, however).

1540. Clearly too late - nobody at all is interested in the poor bird.

3 December

♂278 seen intruding along Robertson Creek by Gate (see Gate notes)

4 December

1220. Watching with the captive caged up in the granary.

1235. ♂<sup>DB-LG(W)/Wh</sup> #386 here eyeing the captive. No calls.

1242. ♂386 + 1 other ♂ now in nest tree; no one over by the captive.

1246. 2<sup>nd</sup> bird, still eating an acorn, is ♂<sup>M/</sup> - Tan #282.

1252. ♂<sup>Yell-Red/LG-Lght</sup> #67.

1303. Still no one to the cage.

1315. Giving up - no one is interested (activity generally fairly low at this time).

16 December

1300. Counted stores: Sycamore: 758



Melanerpes formicivorus

Finch

Hastings Reservation

(16 December)

✓

Valley Oak: 2406

Nest spc + area: 249

} 3413





1977

Walter D. Koenig

1

Melanerpes formicivorusRoad 3Hastings Reservation13 January

Took a sample of 65 or so acorns, mostly from a small dead limb I felled in the process of getting up. Saw ♂ 68 and ♀ 269 when I arrived, working stores.

14 January

Counted stores: Valley Oak: 1043 } 1990 (!)  
Sycamore: 947 }

15 February

1030. Watching. ♂ or ♀ #68 here. ♂ M/Bk-wh #184 in perch sycamore.

1050. ♀ M/wh #269 karrit-cutting over across the creek over something.

1100. ♂ DB/4L-LB #265 now up in the sycamore. C'est tout.

8 March

1230. Counted stores: Valley Oak: 623 }  
Sycamore: 838 } 1461

As far as I could tell the birds were up the side of Poison Oak Hill, probably sapsucking in some Live Oaks.

6 April

930. All 4 birds here hawking; all 4 seen well to very well; est ♂ 184, ♂ 68, and ♀ 265.

Counted stores: Valley Oak: 553 }  
Sycamore: 730 } 1283

Stores have not really diminished noticeably since March.

18 April

1315. All quiet here; no birds seen in/out of holes.

21 April

1615. 3 birds near/in the new low hole in the sycamore; it could be it.

22 April

1700. No one at the hole today.

24 April

1230. A bird at the hole.

26 April

1530-1600. 2 birds flushed from the nest tree when I arrived but none returned by 1600.

1605. ♂ DB-wh(n)/wh #269 and ♂ wh-Bk #184 now here.



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2

Melanerpes formicivorusRoad 3Hastings Reservation

(26 April)

1610. ♂ 184 flew to low hole in sycamore, then up next to  
 ♂ 0r/LB #68, who then also flew down and checked out the ~~hole~~ <sup>hole</sup>.  
 1614. At least 2 birds went into the hole briefly.

1615. Leaving. All birds flew off.

27 April

1845. A bird in the low hole in the sycamore prompted me  
 to go up and check. I only used the device I made,  
 but I'm pretty sure there was nothing in it yet.

1 May

1045. Bird in hole again. This time I went up and was  
 able to see 5 eggs for sure. Therefore, either I messed up  
 on 4-27 (4 days ago) or the 1st-year ♀ ~~is~~ has layed at  
 least 1 egg. Tomorrow <sup>it</sup> will be checked for sure.

(Since the adult ♀ here layed 5 eggs last year and  
 fledged 5 young in 1975, I would be fairly confident of  
 the former ~~poss~~ alternative as long as no further eggs  
 appear here.)

2 May

1100. Opened the hole, which still contains 5 eggs, which  
 were duly measured. No doubt I missed at least 1 egg on  
 April 27<sup>th</sup> (all eggs look pretty fresh).

5 May

1515. Bird incubating.

6 May

1230. " "

9 May

1145. " "

12 May

1500. " "

14 May

1510. Bird in hole; not flushed. Lots of acorns remaining here.

1515. Watching. Several birds here, inc. ♂ <sup>M</sup> #184; bird out of hole.

1532. Several birds (2) just came with food - babies are hatched and  
 still alive. Feeding is at least partially of acorn bits, which 2 birds are  
 dealing with at an anvil and then flying to the hole with.



1977 Walter D. Koenig

3

Melanerpes formicivorus

Road 3 Nest Record

Hastings Reservation

26 April 1600.

Considerable interest in the hole.

27 April 1900.

Checked the hole not especially competently with my mirror device and saw nothing.

1 May 1030

Checked again with device and saw 5 eggs.

2 May 1100

Bird incubating; hole opened; 5 eggs:

① 26.1 x 20.0

② 25.4 x 19.5

③ 25.2 x 19.8

④ 25.4 x 20.2

⑤ 25.1 x 20.0

19 May 1415

3 babies left, measured:

① <sup>382</sup> Pump-Bk

② <sup>383</sup> Or-LB

③ <sup>384</sup> Brn-Or

19 May 1415

47.8 <sup>21.5/14.7</sup>  
22.5

47.2 <sup>19/13.9</sup>  
22.0

44.0 <sup>19/13.7</sup>  
21.4

Numerous  
Lice

1 June 1700

93.9 <sup>82/22.5</sup>  
25.7/56/36

93.0 <sup>87/22.8</sup>  
26.7/58/36

89.4 <sup>82/22.6</sup>  
24.2/52/34





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4

Melanerpes formicivorusRoad 3Hastings Reservation

(14 May)

1537. ♂184 had come out of hole, went to anvil, worked at an acorn for 2 minutes, then flew directly to hole, then entered once the ♀, who having done the same thing several minutes earlier was still inside, came out. (The weather right now is sunny but cool and quite windy).

1545. Birds will sit on a limb looking around for several minutes, as if they were looking for some insects to go out and hawk. No hawking taking place in my view, however (birds are out of sight much of the time, of course).

1550. One hawking flight seen. So far I've been pretty unsuccessful at pinning down who's doing most of the feeding (I've seen 6 trips to nest so far, 3♂ and 3♀), but the birds involved are certainly most likely ♂184 and ♀265. They are clearly doing their best with what's available, meaning mostly acorns. Certainly the odds of babies surviving on largely an all-acorn diet must be pretty small, however. [but neither's bands seen especially well.]

1556. Both ♀♀ here, and both seen feeding. ♀265 watched at the anvil eating some acorn bits herself (or so it seemed), then flying to the nest.

1600. ♂184 clearly getting at an acorn, then going to the nest. Birds (2-3 anyway) are almost taking turns at the anvil (the other remaining in the nest until another bird comes to feed, having just come from an anvil). There's no question but that the diet here must be heavily on the acorn side.

1610. ♂<sup>LB</sup> #68 in nest tree briefly; not seen going to nest

1615. Leaving. With 9-10 <sup>feeding</sup> trips in the hour I was here, the feeding rate does not seem at all low. If they have problems here (and



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Melanerpes formicivorusRoad 3Hastings Reservation

(14 May)

I presume, given the fate of many of the other nests during this period, that that is not an unlikely supposition) it is most likely what they're being fed, not how much. If the weather is decent tomorrow, this nest should be checked then.

15 May

1500 Weather is sunny but still cool and windy. Watching the nest.

♀ in hole. Came out when ♂ 184 gave 1<sup>st</sup> feeding.

1) ♂ 184. <sup>in hole</sup> → 2) ♀ 265 see below

\* stayed to next feeding (in hole)  
A definitely feeding Acorn bits

Feedings 1500-1700.

(♀ in hole at 1500)

RMF = Removed fecal sac

♂ 184 (11)

♀ 265 (10)

♂ 68 (9)

♀ 269 (6)

1504 \*

1505 \*

~~1522~~

1559 \*

1509 \* A

1514 \*

1525 \*

1609 \*

[1516 \*]

1517 \*

1528 \* A

1615 \*

[1522 \*]

[1527 \*]

1537 \*

1623 \*

1526 \*

1532 \*

1539 \*

1635 \*

1530 \*

1538 \* A

1554 \*

[1652 \*]

1539.5 \*

1547 \*

1612 \* RMF

1555 \*

1605 \*

1621 \*

1618 \*

1628 \*

1634 \*

1637 \* A

\* RMF  
1642 RMF  
~~1642~~

1638 \* RMF

1658 \*

1700. Leaving. Total feedings: 36, 18/hour - certainly a good clip. Most of what they were feeding was apparently insects, also. Conditions are obviously improving.

16 May

900. Cold and cloudy. Watching hole. ♂ in hole at 859.

Flew out  
859.5

Feedings: 902 (♀ 265); 905 (♂ 184 Acorns); 909 (♀ 269); 910 (♂ ?); 911 (♀ 265); 913 (♂ 184);

920 (♀ 269); 922 (♂ 68); 924 (♀ 265, Acorns); 925 (♀ 269); 927 (♀ 265); 928 (♂ 184); 929 (♀ 265);

932 (♀ 269); 933 (♂ 68 Acorns); 936 (♂ 184); 941 (♀ 265); 943 (♂ 68); 950 (♂ 184 Acorns); ~~951 (♀ 269)~~;



Melanerpes formicivorusRoad 3Hastings Reservation

(16 May) 955 (8184) . 1000. End. Total of 20 feedings in 1 hour; not at all bad, ~~at~~ especially given the weather. Clearly acorns are helping out a great deal here, but I'll still have to profess astonishment at the apparent amount of insects they seem to be getting. Perhaps things really aren't so bad, at least as long as it's not too windy or raining.

18 May 2015. Could get nothing (no adult nor baby calls) out of the nest. It was late and all, but I sure hope nothing has gone wrong here.

19 May 1415. Nest opened: 3 babies, all pretty comparable in weight. Eyes open a slit only, papillae just breaking skin on wing. Traditional tarsometatarsus was measured.

All 3 babies had what seemed to be an unusual number of lice running around on them.

1 June 1700. Banded the 3 babies, who all seem in good shape, as #382, 383, and 384.

8 June 1830.  $\geq 3$  birds in the high hole in the nest tree apparently roosting on this foggy evening.

13 June 900. Counted stores: Valley Oak : 331 }  
Syc. Nest tree: 452 } 783

I'm fairly sure I heard the babies off on the N side of the road.

2 July 1155. Watching. ~~DB/Or~~  $\textcircled{1}$  ♂ DB/Or / #68, plus 2 ♀♀ in the vicinity.

$\textcircled{2}$  ♀ DB/LP-LB #265.  $\textcircled{3}$  j Blk-Wk(n)/Blk #384.

1215  $\textcircled{4}$  j R-Blk/Red #382 up in area across road from the nest. Also

$\textcircled{5}$  ♀ M/Wk-DB #269.

1225. Leaving.





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7

Melanerpes formicivorusRoad 3Hastings Reservation

(2 July)

1710. Back again. ♀265 in nest tree. ♂ or LB #68 in sycamore perch tree.

1728 Several birds back now: ♀265, j382, ♀269, and ♂ Wh-Blk/Blk-Wh #184.

Also j384. Still no sign of j383. Several birds drilling at acorns; the 2 babies begging from anyone nearby.

1740. Others flew across road into forest; only ♀265 remains here.

1808. Both adult ♂♂ back. 1810. Both left now.

1820. Leaving. All quiet. Looks grim for the 3<sup>rd</sup> baby - he should have been seen with the other 2.PURGE: j383: Not seen after banding on 1 June 1977.25 July

1330. Heard ≥ 1 baby while here to count stores:

Valley Oak: 231

Sycamore: 444

} 675

31 August

Still have plenty of old acorns.

1 September

1035. Watching.

1040. Obooy → ♂ j383. Forsure. Amazing.

1052 ♂ or LB #68 over across the creek.

1100. ♂ ♀ DB/Wh #265 with an acorn over across the creek.

♂ j384 begging from her as she eats it.

1110. ♂68 chasing an intruder. ♂ M/Blk-Wh #184.

1145. Think I'll quit for now and go count the acorns here.

1200. Got ♂ ♀ DB/Wh #269 while counting stores.

Stores: 10: 138

Syc: 313

} 451

All looked old to me.

10 October

1505. Watching. ♂ ♀ DB/Wh-LB #265. ♂ or LB #68. ♂ M/Blk-Wh #184.

1600. Don't know what happened but everyone's disappeared. Later.

15 October

1450. Watching. ♂ or #68. ♂ ♀ Wh-DB/M #383.

1505. ♂ #184. ♂ ♀265. Birds storing acorns.





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8

Melanerpes formicivorusRoad 3Hastings Reservation, N.(15 October)

1525. ⑤ ♀ DB-wh(w)/wh #269. ⑥ ♂ Red-Blk/Red #382.

1550. Leaving. All but one!

16 October

1200. Here for another short watch to try for j384. ① ♀269.

② ♂184, ③ ♀265, ④ ♂68.

1230. No babies here for the moment. Leaving. Adults, at least, are busy storing.

25 October

1145. Watching. ① ♀ DB-wh(w)/wh #269. ② ♂ wh-B/B-w #184.

1205. ③ ♂ DB #68.

1220. ④ ♀ Yel-Blk/Yel #383.

1245. ⑤ ♀ DB/wh-LB #265 just went to the road to pick up an acorn.

1253. ⑥ ♂ R-B/R #382.

Despite the fact that the 1<sup>st</sup> year birds are not making themselves particularly conspicuous, I would say that the prospects for j384 still being here are not good.

1300. Leaving.

6 November

Purge: j384. Last seen 1 September, gone by 15 October  
 → Disappeared about 23 September ± 2 wks.

15 December

1440. Cold and shabby but watching. ① ♀ DB/wh-LB #265.

1500. Looks like it's not worth hanging around.

16 December

1015 Watching again. ① ♂ M/Blk-wh #184. ② ♂ or/Blue #68.

③ ♀ Yel-DB/M #383. ④ ♀ DB/wh-LB #265.

1055. ⑤ ♀ M/wh-DB #269.

1115. Going to count stores. 1<sup>st</sup>-yr. birds still pretty shy and elusive.

Counted stores: Sycamore: 1173 } 2101  
 Valley Oak: 928 }

28 December

1400. I drove up to discover 6 birds sitting in the Sycamore perch tree.  
 Only ♂184 was identified, but apparently everyone is here.



1977

Walter D. Koenig

1

Melanerpes formicivorusSchool HillHastings Reservation4 January

♀♀191 and 193 at 1800 probably trying to move in. See 1800 notes.

9 January

Walked up; nobody seen at "S. Hill B"; but several birds were over in the main School Hill area.

27 January1530. Counted stores: tree 2 1520 }  
tree 1: 465 } 1985

Also took a sample of 50 acorns from the granary (I already have some from a fallen limb at the lab.)

3 February

♂86 caught at 1500.

22 February

1200. In hide watching.

1255. ① ♂ DBRW #86 finally here in storage area. Others down below in forest, inc. ♀ M, (either 191 or 193).

BOS. ② ♀ub here now.

1308. ③ ♀ M / LPink #193.

1310. A Cooper Hawk came winging by causing momentary consternation; ♀193 saw it and loudly karrit-culted several seconds before its arrival.

1317. ④ ♂ <sup>WH-DB/Yel</sup>WH-DB/LG #256. ⑤ ♂ LB/LP #296.

1430. Leaving. Birds still loosely in the vicinity, but only occasionally out where I can get a decent look at them.

See 1500 group notes for some School Hill birds seen there - (most of the group was apparently down visiting ♂♂194 and 195. Seen were ♂256, ♀191, ♂296, and ♂297; 1-2 others were also probably there. This leaves the existence of only ♂298 still open to some question). (♂86 also there).

7 March

More birds (inc. ♂298) at 1500. See 1500 notes.

10 March1630. Several birds scattered around here, inc. one who flushed to the S. Hill "B" tree (who was banded). Counted stores: Tree 2: 1312 }  
Tree 1: 366 } 1678



Melanerpes formicivorusSchool HillHastings Reservation

- 18 March 1715. Came up to check for wing-streamered birds after finding 1500 deserted. Did see several birds, in any case, including ① ♂ 256 and ② ♀ ub (slight tail spotting) both up at the east edge. Also ③ ♂ Blue/Yel #296.
- 19 March 1100. Watching.  
1140. Came up. Several birds came to the west edge of the field, but my attempt to see them failed. On the way down I found several  $\frac{1}{3}$  of the way down; at one point I also saw an AW fly past me down toward 1500, where I'm now headed.
- 4 April All 3 of the 1<sup>st</sup>-year birds down at 1500 (still? again?).
- 14 April 1800. ♂ DBRW #86 plus 4-5 others in the vicinity.  
Counted stores: Tree 1: 303 }  
Tree 2: 1212 } 1515
- 18 April 1645. 1 bird near old unused granary along the path down to Long Field. Otherwise no birds in/out of holes up on School Hill
- 20 April See Y notes. All 3 1<sup>st</sup>-yr birds there.
- 21 April 1115. Nobody seen in a brief check of the Field and the nearby holes that I'm aware of.
- 25 April 915. Watching.  
922. ① ♂ DBRW #86. also a ♀ and a 2<sup>nd</sup> ♂ at least.  
940. ♂ 86 and ② ♀ ub atop tree 1.  
950. ③ ♂ WH-DB/Yel #256.  
1030. ♂ 86 landed briefly at the roost hole in the lower Valley Oak (where the screen still is). There may very well be only these 3 birds here.  
1045. All 3 birds together atop tree 1; ♂ 86 flew to '76 nest





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3

Melanerpes formicivorusSchool HillHastings Reservation

(25 April)

hole briefly, then returned; several minutes later the ♀ flew to the '76 nest hole, did not go inside either, however. Then all flew down somewhat from the storage area. This could be the group, though we'll have to wait awhile to find out for sure, especially in regards to the 1<sup>st</sup>-yr. ♂♂.

Flash! See School Hill West notes for news on ♀♀ 191!

1 May

Walked up right at dusk, finding that several birds roosted in the hole down along the path (where the wire still is) but that a ♂ was in the '76 nest hole.

2 May

930. Nobody in any holes. I opened the '76 hole anyway, though, and found several eggs (the hole has been deepened to the extent that I couldn't reach the bottom).

1600. Again nobody in the nest hole, but there are 5 eggs there, all relatively fresh, and all rather warmish.

4 May

830. Bird flushed from the nest, where I saw 5 eggs still (via ~~my~~ my mirror widget)

5 May

Purge:

♀♀ 191 and 193. Last seen here at School Hill on 22 February, found at S. Hill West on 25 April → Moved to unwatched group about 24 March ± 1 month.

6 May

2005. Bird in hole at dusk.

8 May

Bird flushed from hole despite the rain today.

11 May

2005. Bird in hole.

14 May

1820. Bird flushed from hole, leaving some relatively noisy nestlings behind.

18 May

1150. Watching. Nestlings but no adults in hole.

1200. ♂ <sup>WH-DB</sup> #256 fed along with a ♀.



Melanerpes formicivorus

School Hill Nest Record

1 May 2000

2 May 930

1600

4 May 830

18 May 1400

① LG-LP (401)

② Or-Brn (400)

③ Hawk-wh (402)

④ LB-Or (399)

6 18 May 1400

29.4 15/11.8

33.8 16/12.4

36.0 15/12.4

19.1 12/10.7 thin

27 May 1700

58.4 21.5/16.7

68.2 21.0/11/12

71.3 22.5/9/6

48.4 21/15.7

7 June 1800

85.8 23.1/49/36

90.1 23.0/69/47

90.5 24.6/66/42

80.4 22.3/46/29

Hastings Reservation

Bird roosting in '76 nest hole

Hole examined enough to know that several eggs are in it

Opened, 5 eggs, warmish.

① 25.7 x 20.2

② 24.7 x 19.8

③ 25.3 x 20.0

④ 25.4 x 20.2

⑤ 24.8 x 19.6

Still 5 eggs; bird incubating.

4 babies:



Melanerpes formicivorusSchool HillHastings Reservation

(18 May)

1203. ♀ now in tree 2 scarfing down some acorn bits for herself.

1212. Several more feedings, inc. ♂ DBRW #86.

1227. ♂<sup>Wh-Blk/Or</sup> #297 came and fed the babies. At least one decided to return home for spring.

1325. Now, to confuse things again, ♂<sup>m/or</sup> #88 is sitting atop tree 1. After several minutes another ♂ landed next to him, and he (♂88) gave begging calls several times while neither moved. Then the 2<sup>nd</sup> ♂ flew off. Shortly thereafter ♂88 was giving begging notes in the presence of the ♀. He certainly is being tolerated.

1350. Going to check nest. Obviously things are not clear here, but at least 4 birds are assisting in the effort: the ♀ and ♂♂ 86, 256, and 297. The present whereabouts and status of ♂298 are unclear; ♂296 is presumably still down at 1500. ♂86 did not do much besides show up here, and I suspect that he has not returned, but should still be considered a 1500 bird.

Babies: 3 in good shape, 1 very thin & hungry. Eyes not open, feather papillae ~~just~~ not quite breaking skin in largest.

22 May

1115. Watching.

1120. Somebody just fed. ♂<sup>LG/M</sup> #86 here. Also ♂<sup>Wh-Dk/Yel</sup> #256.

1140. Suddenly appearing to pick out an acorn cotyledon from tree 2 and eat it is none other than ♂<sup>LG-Dk/M</sup> #298, another of the wayward sons. Also here: ♂<sup>Or/Yel</sup> #297, both in tree 1 now begging from ♂86.

1152. The ♂<sup>Or/Yel</sup> finally showed up with some goodies.

1150. The babies are getting none too much attention, it would seem. Feedings have been few and I don't think the birds have been remaining to brood after feeding trips. And it's cold out.





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6

Melanerpes formicivorusSchool HillHastings Reservation

(22 May)

1230. Leaving. Birds are feeding, but there is no hawking going on and the cold is obviously cramping their style. Two of the 1<sup>st</sup>-yr birds are back, as hoped; it will obviously be interesting if ♂296 doesn't return. The 2 that are here continue to make pests of themselves - begging from the adults - a behavior which 1) clearly reduces the net "help" that these birds yield to the babies and 2) can scarcely be afforded on a day like today.

26 May

2005. Babies rasping (alone!) as I walked by. Meanwhile, a bird was looking out of the <sup>roost</sup> hole down the path, which made me mad, so I yelled at them to go take care of their poor babies, flushing 3 birds from the roost hole.

27 May

1730. Am now watching/waiting in hide, after having measured the babies, collared them, and set up to try and catch the ub ♀.

1800. ♂<sup>16-26/16-</sup> #298 in storage area with at least 1 other bird.

1840. ♂256 came with lots of gootics to the hole, but got freaked by it all and didn't go in. I'm going to quit for now, leaving some of this stuff up there so they won't be so confused next time.

28 May

1545. Trap set up again for the ♀.

1555. ♂298 making his usual begging racket in the storage area, also there is ♂<sup>Or/14</sup> #88 (!), formerly of 1500 but now, perhaps, moved back home!

1620. ♂86 atop Tree 1.

1655. ♂ fed and removed fecal sacs.

1700. Another zilch. Tomorrow I try in the morning.

29 May

1110. Watching. This time trap is all set; didn't even go up to hole.

1120. ♂256 fed the babies -





1977 Walter D. Koenig

7

Melanerpes formicivorus

School Hill

Hastings Reservation

(29 May)

1130. ♂256 fed; 1145. ♂256 and ♂86 fed.

1220. ♂256 has fed 3 more times; finally Pub came, but I blew it.

Maybe tomorrow - I came pretty close. 1-2 first-year birds were still begging constantly over in the storage area the entire time I was here, by the way.

30 May

915. Back again for probably my last crack at the ♀ this way.

930. Several birds here busy hawking. ♂256 has an incredible billful of hawked insects. ♀ here too!

947. ♂256 fed. 950. ♂256 again. 952. And again ♂256. 954. Another full billful. He must be storing these insects somewhere.

1005. ♂86 here hawking also.

1100. I don't entirely understand, but despite the persistent presence of these 3 birds (none of the first-year birds were seen or heard today) only ♂256 seems to be feeding: by 1100 he had made 15 more feeding trips, for a total of 19, all by him (plus at least 1 that I missed). I'm afraid I'll have to try ambushing the ♀ at the roost instead.

2 June

All 3 School Hill 1st-yr birds down at 1800 (see 1800 notes).

7 June

1800. Banded, etc. the 4 babies as #399, 400, 401, and 402.

8 June

1800. Bird in nest hole; no one in any other holes.

14 June

1700. Counted stores: Tree 1 241

Tree 2: ~~284~~ 622 } 863.

One nearly-fledged baby was nearly falling out of the hole while I was here.

25 June

1830. Walked through, but all holes were empty and nobody was in evidence.

9 July

1100. Watching from hide.



1977

Walter D. Koenig

8

Melanerpes formicivorusSchool HillHastings Reservation

(9 July)

1111. ♀ here preening for several minutes.

1135. ♂ DBRW #86 in tree 2. 1150. ♀ in tree 1 now alone.

1210. 2 babies here: ♂ jyel/Da-LG #399 plus a 2nd(?)

1215. There may, I fear, be 2 adult ♀♀ here (I definitely see 2 here - 1 ub ♀ atop tree 1 and a 2nd ♀ in tree 2.) Arrgh. Also a 2nd adult ♂ here. 2nd ♂ is ♂ Or / Yel #88! Good!

1230. ♂ wh- / LG #256.

1315. 2nd adult ♀ here is ♂ ♀ M / Red #191, another wayward offspring possibly now returned. Also here is a baby, who I had a fair-poor look at and who I think was ♂ jyel / Reddish #402. I'll obviously have to return again to try and search out the other babies.

10 July

1210. Watching.

1245. ♀ in sap tree, flew to tree 1.

1255. ♂ wh- / LG #256, flew to sap tree.

1320. ♂ LP / M #86 in tree above enclosure.

1322. ♂ jyel / Reddish #402 in tree 1; just executed a beautiful hawking flight ≈ 50 ft above the tree with twists and turns.

1350. ♂ Or / Yel #88 above enclosure now.

1430. Leaving. j402 here again briefly, but otherwise I was following a 3-4 adults only the entire time, suspiciously unaccompanied by begging babies. Birds were in the sap tree (at the forest edge above the nest tree), in the main area and above the enclosure. Even the [2] babies that are here were cryptic (j399 not even seen today), so I can't be sure, but my guess is that j400 & 401 are no longer with us.



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9

Melanerpes formicivorus

School Hill

Hastings Reservation

(10 July)

1440. ♀m, (191 or 193) here, but hell if I could figure out which she was.

1500. Opened the nest hole, finding it empty of any clues concerning the whereabouts or fate of any nestlings. Below the tree I did find 2 sheathed 1°, however, which looked like they could very well have come from a dissolving body of a <sup>newly fledged</sup> baby AW.

Counted stores: Tree 1 : 232  
Tree 2 : 453 } 685

11 July

740. And again.

800. ♂♀ub here with ♂256 and 1 juv. whose bands I couldn't see  
825. ♂388 in Ret ~~88~~ #191.

835. ♂402 immediately behind ♂DBRW#86.

912. j402 in tree again (alone).

920. Just had a rare dominance interaction between ♂86 and 256: both were together with ♀191 atop tree 1; ♂256 began emitting the "begging-subordinant" calls common in older birds. ♂256 proceeded to hop on top of ♂256 and peck at him several times before hopping off. ♀Ret/13-WH#191 now here preening.

925. j402 here again.

940. Leaving. This is enough to convince me to Purge j400 and 401. (Also to move back ♀191 and ♂88). I'm bothered a little about j399, but I do believe I saw him. j402 is the only baby hanging around here regularly, however.

17 July

830. Several of these birds down at Pump (getting water?).  
See 1500 for ~~change~~ explanation of changes made in group composition here. Birds affected or discussed at length are ♂88, ♂194, ♂195, ♂296, ♂297, ♂298, ♂86, ♂256, ♀191, and ♀193.





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10

Melanerpes formicivorusSchool HillHastings Reservation22 July

2045. 23 birds roosted in the lower hole (non-nest hole) tonight; no one roosted in any of the other holes.

23 July

1000. 23 birds, inc. ♂ DBW #86 and ♂ ca #256, up in the forest above Sch. Hill "B".

1010. Followed them even further out by the chaparral, where they clashed for several minutes with some other birds.

(This was just over the fence line in a woodland between the fence and chamise over the "top" of School Hill.) (see back)

1020. Now in the same area are 2-3 birds inc. OrW, presumably ♂334 (not ♀16 - the WS didn't have a spot on it).

1030. Here now: ♂ jyel/Red #402 (School Hill).

1040. All quiet now except for j402 hawking up here. No sign of either of the groups.

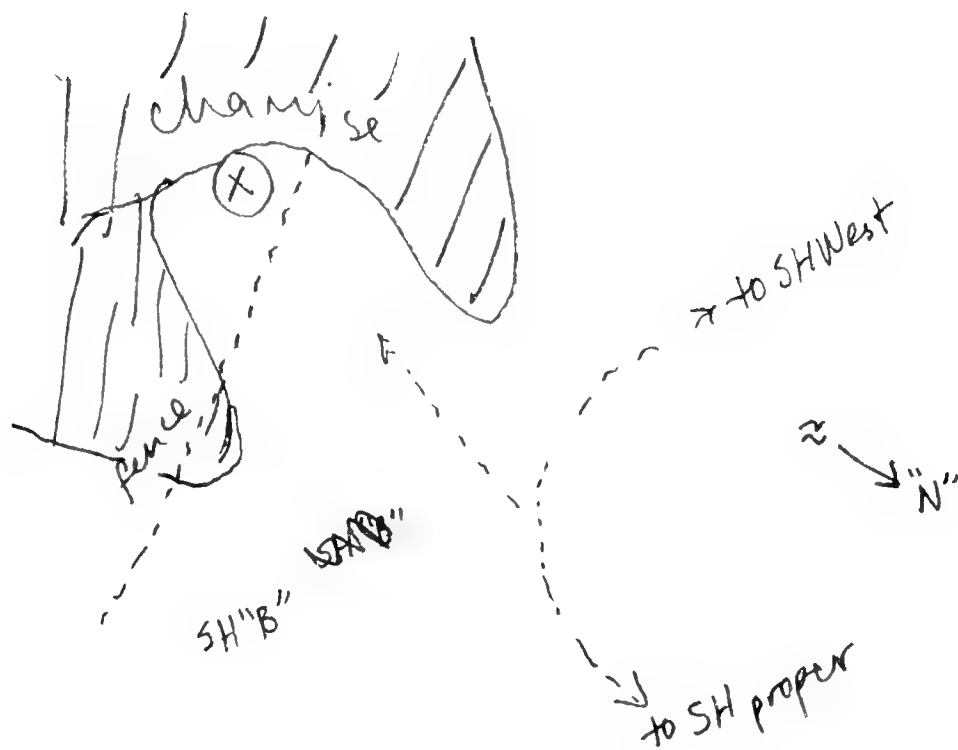
Watched at dusk, but only 1 bird (!) roosted in the tree, or anywhere else down in this part of the territory. Not enough to warrant a morning ambush tonight.

4 August7 August

j402 at the Pump.

530. After several weeks of checking the holes at dusk here, I finally went ahead and ambushed at the 1976-77 roost hole, where I'd seen 5 birds go in. I caught them all, obtaining ♂86, ♂88, ♀191, ♀193(!), and, yes, ♀ub (at last), now ♀419. I bled ♂88 and ♀419, and had everybody back by about 800. While I was waiting for them to come out, 2 more birds flew up from down the hill; they were possibly ♂256 and a juvenile. Later about 930 1-2 birds were out by S. Hill "B", though, and it was clear that some strange birds are in the vicinity.

23 July



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11

Melanerpes formicivorus

School Hill

Hastings Reservation

(7 August)

The biggest upset of the morning was ♀193, who had moved to School Hill West with ♀191 quite a while ago, then was with ♀191 still when both were down at 1800 during the revolution there (20 June), but was not seen at School Hill in July (9, 11 July) while ♀191 was, and therefore had been assumed still at School Hill West. Clearly that is no longer the case, so for a guess:

♀193. Moved [back to] School Hill between 11 July - 7 August → 24 July ± 2 weeks. For more information on ♀♀191, 193 see 1500 notes, 17 July 1977.

31 August

900. Watching from hide.

920. I was just getting upset over an ad ♀ who was here by herself eating a green acorn, but then several birds appeared, inc. ① ♂ <sup>Mauve/Red</sup> #86 and ② ♂ <sup>wh-Red</sup> #256 making her very touchy and eventually displacing her. ③ ♀ <sup>wh-Red</sup> #419 here also.

951. ④ ♀ <sup>M/Red</sup> #191 drilling at an acorn in the storage area.

1020. ⑤ ♂ <sup>M/</sup> #399. Seen well enough that I'm fairly sure he was a scruffy-looking (molting) ♂-type juvenile.

1025. ⑥ ♂ <sup>♂-type</sup> <sup>yel/Red</sup> #402. Seen better in the nest tree.

1136. A Prairie Falcon just circled several times above the area heading uphill - quieting down the birds for several minutes. With that I think I'll go. Wish I'd seen 399 again, but I'm fairly sure I did see both the juveniles (402 for sure, 399 moderately sure). I don't know what's up with ♂88 or ♀193 - maybe both have left again.

As for stores, I was able to find only 1 limb (the <sup>large</sup> dead one in Tree "2")



Melanerpes formicivorusSchool HillHastings Reservation

(31 August) ✓ which had good acorns, but it had about 50 (only 2 of which were new green ones) thereby qualifying this group as having not run out of acorns this year.

4 September ♀193 seen at 1800. See 1800 notes.

8 October 1645. Up here for a brief check.

1651. ①♀<sub>M</sub>/Red #191.

1700. Certainly nothing obviously spectacular going on. Going to check the nest hole.

15 October 950. Watching.

1003. ①♂<sub>yel</sub>/Red #402. ②♂<sub>wh-DB</sub>/LG #256. ③♀<sub>w-Red</sub>/w-R #419. ④♂<sub>LP/M</sub> #86.

j402 definitely still ♂-type showing no hint of planning a change.

1030. ③♀<sub>Or</sub>/Light #191.

1140. Some intruder just got chased out.

1150. Leaving. These 5 birds seem like it - I saw them all several times with no trace of any others hanging around.

No stores or birds seen in passing at School Hill "B".

1320. ♂402 possibly seen at Pump (see Pump notes).

17 October See 1800 notes for a discussion of ♀193, who is being moved down there as of 21 August.

19 November 925. Watching. Still cold & out here but sunny.

930. ①♀<sub>Or/LB-wh</sub> #191.

934. 1-2 intruders landed and were immediately chased away.

②♀<sub>R-W</sub> #419. ③♂<sub>LP/M</sub> #86 also in granary. ④♂<sub>wh-DB</sub> #256.

1020. All 4 adults back; still no sign of the babies.

1030. ⑤♂<sub>yel/Red</sub> #402 just flew in from the top of the field (near S.H. "B").

1100. Leaving. All adults still here storing, etc. j399 is gone (though he conceivably could have gone with ♂88 down to 1500).





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13

Melanerpes formicivorusSchool HillHastings Reservation

(19 November) Walked up by School Hill "B": no sign of stores or a group there.

26 November Purge: j399. Last seen 31 August, gone by 15 October  
 → Disappeared about 22 September  $\pm$  2 weeks

j388. Moved back to 1500 for a 2<sup>nd</sup> time. Last seen here when he was caught on 7 August, not seen here 31 August or afterward (15 Oct, 19 Nov.). Seen at 1500 6 November and 20 November. The move was apparently between 7 and 31 Aug. Moved to Watched Group 19 ~~November~~ August  $\pm$  1 week.

15 December 1600. Counted stores: Tree 2 1803 }  
 Tree 1: 464 } 2267

✓ In the process I identified 3 birds ( $\sigma^7$  LP/M #86,  $\sigma^7$  WH-DB/K #256, and  $\sigma^7$  M/Red #191 [who must not be at 1800]) and saw a 4<sup>th</sup> at least.

1615. 5 birds seen flushing. Everyone seems to be fine here.

No sign of anything at School Hill "B".





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1

Melanerpes formicivorus

School Hill West

Hastings Reservation

29 January

1400. Walked over here. Granary has several hundred acorns stored in it, nearly all Q. kelloggii. Didn't see any birds, however.

25 April

1110. 1 bird began calling as I approached and flushed before I could spot him. There are acorns remaining in the granary here, however.

1120. Bonanza! Walking SW along the top, 2 birds flushed from very near the chaparral slope just above where the road can be seen. A 3<sup>rd</sup> bird remained in a Blue Oak, and was none other than ♀ DB-LP/DB #193, the 2<sup>nd</sup>-yr ♀ from School Hill! I rapidly tried to get a fix on a 2<sup>nd</sup> bird, perched some ways off, and recorded ♀ Red/M, most probably ♀ B. Pink/Blue-Wh #191, 193's sister. So, it would appear as though we have a group here now composed of a ♂ [unknown whether he's even banded or not at the moment] and these 2 ♀♀ from School Hill, who have moved sometime within the last several months.

These birds returned to the granary, where at 1132 I saw one of the banded ♀♀.

1200. One of the ♀♀ (♀ M/Light #193) near granary; other 2 came by briefly, leaving now, but returning eventually with a hide would seem in order.

2 May

1000. Heard some calling here, but saw no birds during a brief tour of the area.

1630. Walked all over checking the holes in the Black Oak and looking for others. Finally ran into [all] 3 birds on the far S edge of this area atop 2 large Blue Oaks. ♀ Red/Mauvish #191 was seen as one of the 3.



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Walter D. Koenig

2

Melanerpes formicivorusSchool Hill WestHastings Reservation4 May

900. Flushed one of the banded ♀♀ over on the far S side again. Next I returned to the central area, where a bird flew out from the Black Oak (from the high hole?) as I was examining it.

After thinking about it a minute I climbed up to the hole and tried to get something on it by using sticks. I couldn't tell anything about the presence/absence of eggs, but I did come up with a down feather, showing that at least it's been used by AW.

5 May

♀♀ 191, 193 Moved here as adults about 24 March.  
♂ sub Present at Sch. Hill West since 24 March (age unknown).

6 May

2010. I'm fairly sure a bird roosted in the suspect hole this evening, but I couldn't be absolutely positive. In any case, I didn't find any other likely holes.

7 May

1130-1230. Wandered around, finding the birds mostly just down from the granary area and over toward School Hill Field, where there <sup>are</sup> ~~were~~ several largish trees that they were apparently eating catkins off of. 3 were seen, a ♂ and 2 ♀♀, of whom ♀ PB-LR/DB #193 was identified. There's no hint of a nest yet though that I could find.

8 May

Walked by this afternoon in the rain but didn't see anyone.

11 May

As far as I could tell, all 3 birds roosted in the high hole in the Black Oak this evening.

14 May

1830. Nobody seen in/near storage area.

22 May

1300. Bird heard here, but nobody in holes.

29 May

1230. Walked over here, seeing the ♂ in the granary, and flushing a bird from the high hole in the Black Oak! Could be it!

1900. With highest of hopes, I opened the hole, but nothing yet.



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3

Melanerpes formicivorus

School Hill West

Hastings Reservation

31 May

1700. Nobody in the suspect hole. Even went up and checked inside, but there isn't anything inside in it either.

Perhaps in partial vindication, I should report that the stores here are apparently exhausted: a fair number of broken (presumably empty or nearly so) shells remain, but no complete acorns as far as I can tell.

2 June

Both ♀♀ 191 and 193 at a minor revolution at 1800, see 1800 notes.

8 June

1800. No birds seen; no stores.

14 June

1715. Heard some greeting in the granary as I walked up, so at least 2 birds are here. No one in holes.

22 June

♀ 193 seen at 1800 again - see 1800 notes.

25 June

1900. All quiet. No sign of life from the hole. No birds in evidence.

17 July

See 1500 notes for a discussion of ♀♀ 191, 193 and the return of ♀ 191 to School Hill.

29 July

1945. Nobody seen here is a leisurely walk through the territory.

7 August

♀ 193 caught at the roost at School Hill! Moved back to School Hill, obviously, leaving a void here which I shall have to investigate in the near future. See School Hill notes, 7 August.

31 August

1200. No sign of any birds or stores in passing through.

15 October

1200. Still no stores here - apparently there is no longer any group here at all! (All other groups are into storing for sure by now). Apparently the acorn crop just didn't make it over here. Sub: ~~abandoned~~ <sup>disappeared</sup> about 24 July ± 2 wks.

19 November

No sign of stores or of any birds living here.

15 December

" " " " " " " " " "





1977

Walter D. Koenig

1

Melanerpes formicivorusArf, tooHastings Reservation25 January

Took a sample of 30 acorns out of their granary; their stores are not really abundant but they probably have 700-900 or so. Saw one unbanded ♂ in the vicinity.

19 May

1800. ~3 birds were in or flying to a Blue Oak along the path leading in to the granaries; I looked around and eventually noted the blackish/reddish grained bark at the top characteristic of a heavily-used sap limb. Otherwise, there is one nice-looking hole in the tall tree by the dead granaries and there are stores remaining.

21 May

1745. Heard some calling hear but didn't see anyone. Even checked the possible nest tree across West Ravine, but nobody was there.

22 June

915. A bird was calling near the purported roost tree across West Ravine; I walked over there but found nothing <sup>more</sup> enlightening.

3 December

There are enough stores here to show that the group clearly still exists, but not enough to convince me that they're doing especially well.



1977.

Walter D. Koenig

1

Melanerpes formicivorusBlack OakHastings Reservation.✓ 25 January

1200. Counted stores: Central area: 1466 }

Side area: 452 }

1918Also removed a sample of 55<sup>60</sup> acorns from the central area.

I was able to pick out discernable traces of color on 7 acorns in the one dead limb that were marked last year.

Some of these were quite faint, however.

✓ 11 March

930. Counted stores: Central area 1384 }

Side area: 321 }

170513 April

1030. There is a fair amount of apparently mostly intragroup activity here, especially in the side area. Involves 4-5 birds.

1040. ① ♂ Or/DB-Yel (W) #321.

1042. Some Garrick displaying, lots of wakas, but I don't see any chasing. A ♀ is paying attention to the hole over there covered by poison oak.

1045 Apparently some sort of interaction is taking place; there is possibly one intruder. At least 1 ub ♀ is here.

1050. The ♀ at the roost hole is ② ♀ ub.

1052. There definitely seem to be a few more ub birds here than there should be; also I finally saw a couple chases.

1055. There in fact seem to be 3-4 ub birds here.

1130. The story as far as I can tell is this: there are possibly only 2 ♂♂, ♂321 and an ub ♂. There are 4 or 5 ♀♀, however, none of whom are banded (best I can tell. Some chasing, Garricking, etc., is taking place, but if there has been a complete change of ♀♀ and these are replacements the brunt of the revolution probably occurred several days ago.



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2

Melanerpes formicivorusBlack OakHastings Reservation

(13 April)

In any case, activity here is only intermittently intense, and chasing even among adjacent ♀♀ is relatively rare.

1150. ♂<sup>yel/wh</sup>#102 here after all. Still lots of ub ♀♀, but the continued presence of all 3 ♂♂ at least makes everything somewhat clearer.

1400. Counted stores: Central area: 1353 }  
Side: 145 } 1498

Only one big burst of birds/fighting/activity was seen, down in the far corner by Bianca. I was going to put up a net, but it was way too windy.

17 April

910. There is 1-2 ub ♀♀ up in the forest perch area. No calling going on here at the moment.

915. 2 ♀♀ in forest area; calling now in side storage area. There are ≥ 3 more birds there.

955. An ub ♀ and ♂102 in forest perch area together.

1000. ♀<sup>Red-LG/M</sup>#320 is here, up with ♂102 and ♀ub.

1010. ♂ub eating acorn in side area.

1020. A banded ♂ karrit-cut ing over toward Bianca is ♂<sup>or/wh</sup> Left WS, apparently #217 from Bianca. There are now other birds over there.

1040. Most of the birds are now over where ♂217 had been, perhaps clearing up this minor border dispute.

1042. An ub ♂ and ♀ at the Black Oak roost hole down the N slope.

1050. Now 4 birds at the hole: ♂102, who went in, ♂ub, and 2 ub ♀♀.

1055. 2 ub ♀♀ and an ub ♂ at the hole now.

1100. Leaving. There are, apparently, 6 birds here:





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3

Melanerpes formicivorusBlack OakHastings Reservation

(17 April)

①♂ub, ②♂102, ③♂321, ④♀320, plus ⑤-⑥ 2ub♀♀. ♀197, the 2nd-year bird, is surely gone. I still think that the 2♀♀ have replaced the old adult ♀, who naturally was unbanded also. But I'm going to have to catch some of the birds to pin things down any further. - and the roost hole down the hill seems like a pretty good place to start.

28 April

1700. Lots of calling brought me over to watch (this area was virtually deserted the last 2 times I walked by since the 17<sup>th</sup>). There is chasing and lots of wheas; perhaps 10-12 birds altogether, with several loci of activity as usual. I'm having a hell of a time actually seeing anybody, however.

1710. ①♂ub (just displaced someone?).

1715. 5+ birds rallying in main storage area, inc. ②♀ub and ③♂M, (#321?).

1725. 3 birds together peacefully in central area: ♂ub, ♀ub, ♂w/yel #102. Perhaps this is another of those attempted crashes (such as at R and Finch a few weeks ago) rather than a revolution directly induced by the disappearance of the ♀. (Best way to tell will be, perhaps, to see if extra♀♀ end up staying or whether only the 1 remains).

1730. Hum. 2♂♂ (♂102 and ♂M/DB-yel(n) #321) and 3♀♀ (at least 1ub) together in main area.

1735. There certainly does seem to be a surplus of ub♀♀, some of whom are busy chasing each other. Of course, the ♂♂ aren't helping much. They're friendly to nearly everybody.

1742. There are at least 4 or so ub♀♀ just nearby, and it's not always obvious that 2-3 of them aren't getting along.





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Walter D. Koenig

4

Melanerpes formicivorusBlack OakHastings Reservation

(28 April)

1750. My guess is that what's happening today is a continuation of the apparent ♀ replacement I first saw early last week. Tomorrow morning I should return with nets and try for some of these ♀♀, who seem to exist in some sort of inexhaustible supply.

29 April

1215. 3 nets up; still lots of activity here; watching.

1225. Still lots of ub ♀♀. In main area: ① ♂ ub; ② ♂ M1 - #321

1235. A chase in the side area involving 3 birds, 2 of whom (♂ 321 and ♂ ub [→ 365]) got into the net, while the 3<sup>rd</sup> bird (another ♂ ub) did not. I doubt that the bird I caught was the resident, unfortunately - he was probably the bird getting chased. [He was thin and had ratty, worn plumage and was quite possibly a 1<sup>st</sup>-yr. bird].

1345. Activity is erratic, but fairly subdued with only occasional chases. At least 2 ub ♀♀ are still hanging around with the residents in the central area.

1349. ♂ un/yl #102 here.

1430. Pretty much the same: real chases are few, but there's lots of group wakas and greeting. No trace of ♀ 320, but several ♀♀ along with an unbanded ♂ are still in with the banded birds (on the rare occasions that I get a decent look at them). I'm leaving for a check elsewhere.

1535. Returned to find 2 ub ♀♀ in opposite sides of the 30' net in the side area, #366 and 367.

3 May

1500. Still a conspicuous amount of calling and activity here; they have not settled down entirely yet.

5 May

Purge: ♀ 197. Last seen here 7 October 1976, seen



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5

Melanerpes formicivorusBlack OakHastings Reservation

(5 May)

19 November 1976 over by lower Arnold 2 during the ♀-replacement there. Gone, apparently, by 22 December, → Disappeared ~~by~~ about 6 December ± 2 wks.

6 May10 May

1430. Things rather quiet here; nobody in holes.  
1700. Relatively lots of waka calling coming from here. Nobody in holes, but 5 birds flushed from the central area as I walked over to it.

13 May

1245. 24 birds, all waka ing as I approached, flushed out of the central area. Counted stores: 1256, all in central area.

22 May

1400. ♂ in the infamous '75-'76 nest hole both on the way to and back from Bianca. Definitely could be it.

24 May

1615. Bird in the hole again. Must be it.

27 May

1120. Bird in hole; hole opened; 4 eggs.

31 May

1110. " " "

5 June

1540. " " " (♂)

14 June

1900. Opened the hole & measured the babies, of whom there are only 2.

17 June

1310. Watching from hide.

1325. Cooper Hawk flew by, eliciting several alarm calls by at least 2 invisible AW in the area.

1420. There are birds here - I keep hearing them in the forest behind me. But nobody's come into view or gone to the nest yet.

1435. Finally, ♂ M/D-B-ye(n) #321 fed the kids.

1510. I dare say this doesn't seem to be a real big feeding period. I'll have to try again another day.

Counted stores: 737.

19 June

1115. Watching from hide. No one apparent offhand.



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Walter D. Koenig

6

Melanerpes formicivorusBlack Oak Nest Record

22 May 1400

27 May 1130.

Hastings Reservation

Bird first seen in hole.

Bird in hole; 4 eggs, incubated

① 26.3 x 20.7

② 26.6 x 20.1

③ 26.3 x 20.3

④ 25.4 x 20.7

14 June 1900

2 babies

① LB Or

② ~~Or Brn~~

(410)

29/15.9

33/17.0

14 June 1900

66.1 21.8/6/5

74.5 23.7/7/7

25 June 1300

dead below nest weight 67.8

94.0 91/20.2/18.7 toe 4  
25.1/62/42

See notes. Both were alive and well on 22 June.





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Walter D. Koenig

7

Melanerpes formicivorusBlack OakHastings Reservation

(19 June)

1141. Some calling in forest towards Bianca.

1220. Several birds still back in the forest. Obviously must have sap trees back there.

1245. Seeing anything back there is a real challenge, but I have now gotten fair-poor looks at ♂<sub>wn/yel</sub> #102, ♂<sub>ub</sub>, and a ♀<sub>ub</sub>. Also a ♂ did go into the nest hole, so hopefully the nest isn't gone yet. Though there has been a very occasional flycatch flight, all these birds are clearly sapsucking back here in the forest.

[Re the ♀<sub>ub</sub>, you'll have to decide sometime or other whether to make her a new one or the same unbanded one as always. Maybe the egg measurements will help.]

1300. Leaving. Can't say as I'm especially optimistic about the nest; clearly insects are really on the shorts up here. (I'm not sure why no one seems to be paying any attention to their acorns, however).

1303. May have been 2 ♀♀ together in the small sap limb. That's pretty much what I need to find out, but the nest sure isn't helping me much so I may as well move around and come back as soon as possible.

22 June

645. Watching from hide.

715. The 3 ♂♂ up in the perch area in the forest towards LA2:  
 ① ♂<sub>ub</sub>, ② ♂<sub>Or/DBW/W</sub> #321, ③ ♂<sub>yl/wh</sub> #102.

720. There are for sure 6 birds together in the perch area now; there's no obvious intruder, and best I can tell, which was pretty well but not 100%, 4 are ♂♂.

725. 1 of the ♀♀ seen: ④ ♀<sub>M/wh-Red</sub> #367 (one of those I banded during the revolution).



Melanerpes formicivorusBlack OakHastings Reservation

(22 June)

740. ⑤♀ Red-Lght, #320. Good. That makes it probable that there are indeed 6 birds here (assuming ♀367 lives here now) and that 3 are ♂♂ and 3 ♀♀.

742. Birds are hawking and loading up on insects, but I haven't seen a trip to the nest yet.

755. I think I have ⑥♀ ub.

815. Birds are sort of gradually disappearing from the hawking perches and moving down into the sap area.

845. Leaving. Birds still hawking for the most part. Though I'm not entirely convinced, it makes fair sense that 2 ♀♀ (♀ub and ♀367) would join the group on the occasion of the revolution here in late April; once I determine for sure that ♀367 lives here (she may have merely been intruding today) I'll be more convinced.

I'll have to return later to get the remains of the nest here: it would be pretty incredible if anyone were still alive in it, as these birds are paying no attention to it at all.

1900. These birds never cease to amaze me: the 2 babies are alive and well after all, despite the fact that they seem never to be getting fed!

25 June

1300. Came up to band the kits. The smaller one was, however, directly below the nest, dead, and getting a good working over by ants. The other, fortunately, was alright, banded as #410, and was even fat.

12 July

655. Watching.

700. ① j Tan-Red/Lght #410 hawking in the old storage tree.

730. Birds are hawking around in the lower parts of the field here. ② ♂ Gel/Wht #102 seen; also ♂ ub.

736. 3rd adult ♂, also ④ ♀ Red-1/M #320



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Walter D. Koenig

9

Melanerpes formicivorusBlack OakHastings Reservation

(12 July)

750. ♂♂, #321 with the others (inc. juv, who's being fed by ♂ub).

756. ♀ub in old granary hawking and feeding the baby some of the insects she's catching.

830. A ♀ has been hawking by herself in the forest perch area for the last 1/2 hour who I think may have been ♀367.

850. The ♀ hawking up there now, who is presumably the same bird, is definitely unbanded.

900. Leaving. I'm afraid the question as to what goes with the adult ♀♀ here remains unresolved. ♀367 certainly was not in open evidence here today, however, while at least 1, and possibly 2 unbanded ♀♀ were. I'm either going to have to watch a bunch more or catch a few of these birds (which wouldn't be a bad idea).

✓ Counted stores: Central area: 625

13 July

I was here at dusk, noting rather solemnly that nobody seems to be roosting in any of the holes that I'm aware of.

16 July

♂102 and j410 seen by P.L. Williams at the Arnold Spring this morning. P.L. Williams is cute.

18 July

♂102 and j410 seen by Pam at the spring. j410 drank

22 July

Both the above birds seen at the spring again, along with an unbanded ♀. j410 even drank again.

23 July

• j410 drank at the spring at 635 today.

30 July

j410 seen at the spring again, also ♂102 seen there.

j410 at the spring again at 1545.

1 August

840. Several (4) birds inc. ♀ Red-LG/M #320 in the old storage tree at the very far end of the field here (just over the fence line overlooking Porson Oak Hill).





Melanerpes formicivorusBlack OakHastings Reservation5 August

♂102 and j410 seen at the Arnold Spring this morning.

1 September

j410 caught by Pam at the Arnold Spring. ♂102 seen there also.

18 September♀ <sup>Or-Lg / M</sup> Or-Lg? / Black #320 (most likely) seen at the spring by Pam this evening.24 September1400. In keeping with the fact that Black Oak acorns mature earlier than ~~over~~ the others and that this group stores mostly Black Oak acorns, these birds are way ahead of everybody else in storage, having virtually filled their holes already!

Central area: 1074

Side area: 432

} 1446. Some are definitely old.

30 September

1440. 2 nets up.

1600. Bird caught, processed, and released: ♀320; caught in 15' net in main (central) storage area.

2 October

1130. Nets up again.

1345. ? <sup>M / Wn</sup> #410 seen

1510. Caught one that I wanted! ♀ub → ♀421 (in the 30' net up in the side area). Bird was molting 2° and is thus definitely an adult. Until evidence is gathered to the contrary (and of course there is considerable doubt about all this since I have some reason to suspect that the ♀ here had been replaced) I assume her to be "the" ub ♀ here (now numbered as 552).

3 October

910. Watching.

930. ① ♂ <sup>Wn / Yel</sup> #102 in perch area toward Bianca.

950. Bad news: ② ♀ub. Looks like the bird I caught yesterday may not have been the one I wanted after all.

952. ③ (♂-type still) <sup>Wn-Red / Wn</sup> #410.





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Walter D. Koenig

11

Melanerpes formicivorusBlack OakHastings Reservation

(3 October)

1006. ♂<sup>ub</sup>, I think. An ub ♀ definitely here.1023. ♂<sup>or</sup> / <sub>n</sub> / #321.1028. ♂<sup>ub</sup> seen a little more definitively.

1100. Leaving. Looks like group composition remains the same as before, and that I still need to catch some birds here.

23 October

1840. With an ambush set up at the "nest hole" in the Black Oak, (all?) 6 birds roosted there. I had been worried by a Great Horned Owl, who flew up at dusk and caused some consternation while sitting in the area, but everyone came anyway.

24 October700. The ambush went perfectly and exactly as planned except that ~~in addition~~ in place of ♀320 the 6<sup>th</sup> bird was a 2<sup>nd</sup> unbanded ♂! In sum, I caught ♂102, ♂321, ♂410, 2 unbanded ♂♂ (now #426 and 428) and an unbanded ♀, #427.

This may or not be everyone - just at dawn 2 birds were calling nearby, I especially close in the side area who certainly ~~can~~ may have been a Black Oak bird (possibly ♀320, of course). Hopefully this takes care of all the unbanded birds here, however (all 3 were adults). Of course, now I have to come up with some plausible origin for the 2<sup>nd</sup> unbanded ♂! (this is at least a step forward from not even knowing he existed!)

26 November

Time to begin trying to come up with an origin for the 2<sup>nd</sup> ub ♂ (#428). Best I can tell, no indication of any funny business occurred until April 1977, when there were numerous odd birds (mostly ♀♀, but some ♂♂ as well). Of course there is always the ~~old~~ difficulty of seeing 2 ub ♂♂, meaning that they both may have been here for some time. In fact, given that the odds of this bird having joined the group this



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Walter D. Koenig

12

Melanerpes formicivorusBlack OakHastings Reservation

(26 November)

spring are in fact very small (there being 3 other ♂♂ in the group at the time) my guess (and it is only that) is that this bird may actually have been a 3<sup>rd</sup> fledgling from the 1976 late-~~summer~~<sup>spring</sup> early summer nest (i.e. a sibling of ♂321 and ♀320). After all, I was only guessing that there were only 2 at the time. Thus, this bird will be considered fledged in July 1976 (remember, however, that I have no basis at this point on which to distinguish the 2 unbanded ♂♂ I caught - but the origin of one is most likely this, the other is merely the other).

18 December

✓

Counted stores: Central area: 1579 } 1995  
Side area: 416 }

29 December

Collected 100 acorns from limbs which had fallen during the storms of the last couple weeks. In all, this group lost about 150 acorns and about 250 holes (not as bad as it might have been, given the precariousness of some of the storage limbs here).



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Walter D. Koenig

1

Melanerpes formicivorusArnold 1Hastings Reservation25 January

1445. 1 ub ♀ seen as I walked over to count stores.

3135

Took 50 acorns.

26 February

1120. Watching from hide. A ♂ sitting in granary hiding his bands.

1155. ① ♀ ub here with 2<sup>nd</sup> bird. Hawking.

1210. ② ♂ R/M #199 eating acorn here.

1300. Leaving. Not much besides these 2 birds here.

11 March1100. Counted stores: 282021 March

1245. Watching.

1305. ① ♀ ub chased Brown Towhee out of the granary. A ♂ herald.

1313. ② ♂ Red/M #199 here.

1340. There were 3 birds together briefly nearby.

1355. 4 birds are here - ♀ ub in the granary and 3 in the nearby perch tree. 2 of these, at least, were ♂♂, bands being ③ ♂ M/Dark #266 and ④ ♂ White/LBlue-M, presumably #267. All then flew away east after several minutes. This then pretty much only leaves the 2nd ub ♀ in question.

1455. ♂ see/Blk #266 for sure.

My distinct impression is that though these 4 birds are still here (and who knows, maybe even the other ♀ too) only ♂199 and the one ub ♀ are paying really close attention to the area.

13 April

1025. Bird in hole in main granary.

1530. Counted stores: 235717 April

900. Bird in hole again. Better check here soon.

1630. Opened hole - but unfortunately did not bring the saws and therefore was not able to get everything, but there are at least 4, and probably 5 eggs here (I marked 3, of which one was a runt). The season is on!





1977

Walter D. Koenig

2

Melanerpes formicivorusArnold 1 Nest RecordHastings Reservation

13 April 1025

Bird first seen in hole.

17 April 1630

Hole partially opened.  $\geq 4$  eggs,  
probably 5. 1 runt.

18 April 930

Opened: 7 eggs, all rather fresh.

① 19.7 x 16.4

② 26.0 x 20.4

④ 24.1 x 19.5

③ 26.4 x 20.7

⑥ 24.3 x 19.9

⑤ 26.5 x 20.7

⑦ 24.5 x 18.7

19 April 900.

Nest ~~is~~ empty. No trace of eggs in or  
below nest.

For details on nest 2 (which also failed)  
see regular notes.



1977 Walter D. Koenig

3

Melanerpes formicivorus

Arnold 1

Hastings Reservation

18 April

900. Finally opened the hole all the way, only to discover 7 (!) eggs, all rather fresh. Even though I've apparently blown another chance to prove 2 ♀♀ were laying (no doubt this is the work of the 2 ♀♀ here), the eggs fall into 2 distinct groups: large (length 26.0-26.5) and small (24.0-24.5) of 3 eggs each, plus 1 runt. Definitely a good nest.

As an aside, an hypothesis I just thought of for the "function" of runt eggs is as a synchronizing cue - a signal among group members, especially, as in this case, 2 ♀♀, that the time is right to begin laying. Obviously to support this I'd have to show that runt eggs are laid first, among other things.

19 April

900. A blow: the nest is totally cleared out. The possibilities would seem to be either predation or abandonment by the birds followed by some sort of predation. For the latter possibility, I had not seen a bird in the hole at all yesterday, ever since I'd first opened the thing on the 17<sup>th</sup>, even though there were eggs then. Also, "precisely" the same event occurred last year in the same hole with the same birds. Unfortunately, I of course don't know what happened, but I certainly hope they try again.

24 April

1520. 3 or so birds flushed from the granary when I walked towards it. At least the birds are still here.

3 May

1145. At least 2 birds inside the nest hole in the granary here and a 3<sup>rd</sup> nearby. Maybe they'll try again right in the same place.  
1600. Bird in hole again.



1977

Walter D. Koenig

4

Melanerpes formicivorusArnold 1Hastings Reservation4 May

1900. Nobody looked out of the hole here as I drove by this time.

5 May

1650. Bird in hole again.

6 May

1600. " " " " Nest surely going.

10 May

1720. Nobody in hole this time.

13 May

1100. " " " " I guess there's not a nest going there after all.

1300. Checked all holes. Nobody, though I did flush somebody near the '75 nest tree, I think. I did not count stores here, but there are lots of stores remaining. (There's no way they are going to clean them out in the next 2 months, barring some huge invasion.)

17 May

1825. Bird in hole in granary. I can keep hoping, I guess.

18 May

1200. No one in hole this time around. Looks doubtful.

21 May

1715. Nobody anywhere even remotely connected with A1.

24 May

1740. Nobody seen in/near granary here.

27 May

1400. " " " " " "

31 May

1130. " " " the area.

1 June

2030. Nobody seen at all at dusk; nobody found in any of the holes I was able to check.

5 June

1545. Bird flushed from '75 nest tree, but nobody seen in any holes.

7 June

1030. ♀ in nest hole in granary this time.

10 June

1925. Bird in hole again...

11 June

1525. " " " " This time it must be a nest.

12 June

1830. Nobody in hole this time. Not this again, I hope!

13 June

1430. Bird in hole this time.

15 June

1910. Bird in hole again. Christ, they must have a nest going.



1977

Walter D. Koenig

5

Melanerpes formicivorusArnold 1Hastings Reservation17 June

1600. Watching hole; ♀ inside.

1625. A ♂ replaced her; no sign of food in his bill.

1655. The ♂ left the hole (empty); landed on a branch and proved to be ♂ Red/M #199.

1700. ♂199 flew off. I'm leaving. Odds seem quite good indeed that these birds do have a nest here again and that they are presently still incubating.

1705. A ♀ somehow got back in the hole. Clearly it is a nest.

18 June

1830. Watching hole again. ♀ inside.

1855. The 1 ♀ still in the hole while the long-awaited 2<sup>nd</sup> ♀ is in the granary (no bands seen).

1928. ♂ Red/M #199 took over.

1935. Leaving. (Fog has rolled in).

22 June

900. Bird in hole.

1915. Noone in hole, so I walked underneath it and actually heard babies rasping from the hole! My guess is that they're quite young - probably no older than 4's babies (who are in day 5). Now I can come back and watch birds feeding here.

23 June

705. Watching hole. Noone looking out.

722. ♂266 hawking in nest tree. Moved to hide (can no longer see hole)

836. Finally some action again: ② ♂<sup>Wh/DB-WhCh/#</sup> M/DB-WhCh 267 hawking here.

905. ③ ♂ Red/M 199 fed the kids.

915. Leaving. Not real exciting, but the birds are here and the nest is still going. More watching will have to be done, at least for ♂266, but with ♂267 definitely here I suspect the former is also.

30 June

1950. Pretty sure I heard sounds from the nest in passing.

4 July

1000. Pam saw ♂ Or/Wh 199 at the Arnold Spring.





1977

Walter D. Koenig

6

Melanerpes formicivorusArnold 1Hastings Reservation5 July

930. Finally decided that I had to check the nest, and thus found 4 babies, who were left unmeasured, but whose eyes were fully opened and whose  $1^{\circ}$  were just barely popping thru their sheaths, thus indicating that they are about 13 or so days old, and thus that they should be banded on 15 July or thereabouts.

9 July

1135. Pam saw ♂ <sup>WH/DBWH(N)</sup> #267 at the Arnold Spring.

14 July

1730. Nest failed. Only 1 baby was inside the hole, and he was well gone.

Weight was 42gm.;

Wing length 67mm

Culmen - 19.4mm

Length of  $6^{\text{th}}$   $1^{\circ}$  40mm

Boo. Maybe next year. (This indicates that this last survivor was about in day 18 when he died).

16 July

♂ 267 seen at Arnold Spring this morning at Arnold Spring. (by P.L. Williams). P.L. Williams is very cute.

23 July

♂ <sup>M/Blk</sup> <sub>Yel</sub> #266 seen by Pam at the spring.

Discovered some problems in the main list. I'm not entirely satisfied, but the following changes help a little:

♂ 199. This bird, caught on the nest in June 1975, is clearly still #1 man here. Accordingly, I feel he should be considered the ♂ here since July 1972, who is Presumed banded 20 June '75.

♂ 266. The group here obvious had some strange & unusual shakeups between May '75 and early '76. For philosophical reasons I feel that ♂ 266 and 267, both caught together (probably on the nest) in May 1976, ~~also~~ most likely



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7

Melanerpes formicivorus

Arnold 1

Hastings Reservation

(23 July)

moved here together, which seems rather more likely than one having moved here in spring '75 and the other in early '76. Nonetheless, I have no evidence of there being more than 1 ♂ here through April 1975; 2 ♂♂ were seen in early June, after the May revolution, and 1 unbanded (and only 1, presumably) was still around after ♂199 was caught on 20 June. On 13 Jan. 1976 a 2<sup>nd</sup> ub ♂ was seen, but he was summarily chased. Lots of strange birds were seen on 21 March, and then on 22 March '76 2 unbanded ♂♂ were seen in addition to ♂199. Obviously, the difference between 2 and 3 unbanded ♂♂, or 1 and 2 can be tricky indeed, but be that as it may I fear the only objective thing to do is have one of them (♂266) move here <sup>as an adult</sup> ~~(age unknown)~~ on 9 May 1975, and the other (♂267) move here <sup>(age unknown)</sup> on 8 March 1976.

✓ 25 July

1300. Counted stores: 1436. May be just about the most of anybody on the reservation at this point.

30 July

♂266 seen at the spring by Pam this morning.

18 September

♂266 seen " " " " " " "

30 September

1630. Here for a brief watch. No obvious activity in the granary.

1640. ① ♀ ub. 1650. ② ♂ <sup>Red/M</sup> #199; ③ ♂ <sup>M/Blk</sup> #266.

④ ♂ <sup>Wh/DB-Wh(N)</sup> #267. Birds appearing with acorns.

1730. Must go to check nets. I did see ub ♀(♀) several more times, but only 1 at a time. The ♂♂ are all obviously fine, however.

2 October

1340. 1 net up.

1730. Net down. No catch.

3 October

1130. 1 net up.

1430. ♂199 caught and released.



1977 Walter D. Koenig

8

Melanerpes formicivorus

Arnold 1

Hastings Reservation

8 October

945. 15' net up in main granary.

1315. I hit the jackpot! 2 unbanded ♀♀!! I processed them as #422 and 423, then released them together. They both flew off at slightly different angles but after a brief stop both flew up to the top of the large VD perch tree just up from the granary where they peaceably greeted 1-2 other birds. Since there was no chasing at all during the next several minutes, I can ~~now~~ be very optimistic indeed about them indeed being the 2 formerly unbanded ♀♀ living (and breeding) here.

24 October

920. Several birds over towards the "Top tree" (the Valley Oak in the center of A1-UA2-LA2-Blanca-Blk Oak) were from here. Seen for sure was ♀ M/LB-Red #422, who flew off over to A1 proper.

The top tree itself, however, still seems to be inhabited by a flock of unbanded birds picking acorns and occasionally chasing one another.

14 November

930. Bird inside the nest hole

3 December

1530. " " " " " again!

18 December

Counted stores: 3529.

31 December

The toll of the recent storms here was one of their storage limbs; not their largest, but one with 2 ~~snags~~ dead limbs and a fair amount of space. My guess is that they lost in the vicinity of 500 to 600 acorns and probably 1000 holes. Some looked like they had recently been pecked into - possibly they have been using the stores in the downed limb as much as possible.

I took a sample of 100 acorns - 35 from the downed limb. No birds were seen.





1977.

Walter D. Koenig

1

Melanerpes formicivorusBig TreeHastings Reservation15 JanuaryCounted stores: ~~444~~ 504.

Took a sample of 25 acorns.

25 January1440. ♂<sup>Yel</sup>- #108 and ♂<sup>Red</sup>- / Red- #104 sitting in the vicinity.26 February1300. ♂<sup>108</sup> in perch tree.11 March1030. Counted stores: 230. 1 ♂ sitting in the vicinity.13 April1530. Counted stores: 174. Nobody seen.18 April

1100. 1 ♂ sitting in the perch tree. Nobody in any holes that

I know of.

24 April

1520. Nobody.

26 April

1155. An ub♀ came to the perch tree and began probing around as I was checking the holes. Her behavior makes me guess she was an intruder rather than the resident, however.

28 April

1515. Scared 3 birds out of a low branch in the large ("headless") Valley Oak near the road here.

29 April

1445. Nobody seen.

3 May1145-1215. All 3 birds here: ① ♀ ub, ② ♂<sup>Y/Y</sup> #108 and ③ ♂<sup>Y-Red</sup> / Y-Red #104. They meet in the outer perch tree but fly back into the forest where their nest must be (if they have one).

1300. Wrong again. Finally walked around and checked holes (after hiding in the forest for a bit) and found the ♀ in the rotten limb in the tree by the road. I opened it and found 4 eggs, which were measured. The cuts to open this nest are on the back (upper) part of the limb, but due to the rottenness of the limb will have to be carefully monitored.

4 May

1900. Checked the hole which still has 4 eggs (using my mirror device). Nobody was inside, however.

5 May

1650. Bird in hole this time.



1977 Walter D. Koenig

2

Melanerpes formicivorus

Big Tree Nest Record

3 May 1300

4 May 1915

9 June 1430

Hastings Reservation

Bird first seen in hole; hole  
opened; 4 eggs; fresh.

① 24.3 x 18.8

② 24.2 x 18.8

③ 24.0 x 18.5

④ 23.8 x 18.1

Still 4 eggs.

3 babies

① 403

76.2 <sup>100/22.2</sup>  
23.8/75/54

② 404

75.3 <sup>83/20.9</sup>  
23.8/56/38

③ 405

68.2 <sup>91/22.1</sup>  
23.7/66/30

27 9 June 1415



1977

Walter D. Koenig

3

Melanerpes formicivorusBig TreeHastings Reservation6 May

1545. Nobody in hole.

10 May

1545. Bird in hole. Nest o.k.

13 May

1100. " " "

Counted acorns: 73.17 May

1645. Bird flushed from hole leaving screaming babies. I, needless to say, departed immediately (this is the only active nest left up here that I know of!)

21 May

1500. To my surprise (and delight!) the nest is still on here; I couldn't tell positively, but through my mirror I could see 3 babies at least.

24 May

\* 1735. Babies heard loud and clear here.

27 May

1310. " " " " " "

31 May

1130. " " " " " "

5 June

1510. " " " " " "

9 June

1430. Banded the babies, of whom there are 3, as #403, 404, 405. They are a little thin on this fogged-in day, but looking alright.

15 June

1910. Nestlings making lots of very-nearly fledged sounds.

17 June

1710. At least one nestling still in the hole peering out. Otherwise I checked the granary, which as expected is functionally pretty much depleted as far as I can tell - I did see 4 good acorns two however perhaps questionably so and the other 2 very low and more or less hidden in the granary.

18 June

1800. At least one or two of the fledglings are out making a racket in the main forest area here. One was still trtrtr ing like crazy from the nest hole.

3 July730. I can still ~~hear~~<sup>hear</sup> some fledgling sounds coming from this area.



1977

Walter D. Koenig

4

Melanerpes formicivorusBig TreeHastings Reservation16 July♂108 and j. 403 ~~and 404~~ seen by P.L. Williams at the Arnold

Spring this morning.

17 July

j404 seen at the spring again this morning.

23 July

1720. Watching from truck.

1735. ♀ preening. ① ♀ ub.

1743. ♀ actually consuming an acorn here! Joined by  
② ♂ Or-Brn/Or-Brn #104.1800. ③ j or/Blk #403; pecking away at what would also appear  
to be an acorn.1815. ♂104 flew into a Black Oak and returned, only to begin  
hacking away at an acorn. Apparently at least some of  
the kelloggii are big enough to eat already.1816. ④ j ~~blue~~ #404; also ⑤ ♂ ~~yel~~/yel #108 and ♀ ub again.1838. Both juvs. together for several minutes begging, etc. No  
sign of j405, who should have showed up by now. Both ad♂s  
here also.1850. Leaving. 1♂ still in the perch tree. j405 not seen after  
banding on 9 June. Others honky-dory.25 July

1300. No stores remaining in the granary.

30 July

j403 and 404 seen by Pam at the Arnold Spring this morning

1 August

j403 seen at the Arnold Spring this morning.

5 August

j404 drank at the Arnold Spring at 1505.

30 August

1815. Watching from truck.

1840. ① j or/Blk #403. Still ♂-type. ② ♀ ub, ③ ♂ #1/2 #108, + 2<sup>nd</sup> ♂  
all with green acorns.

1845. ④ j -red/m #404. Also still ♂-type.

1852. ⑤ ♂ or-red/or-red #104. Why does this bird always look odd?





1977

Walter D. Koenig

5

Melanerpes formicivorusBig TreeHastings Reservation

(30 August)

The season is definitely on: this group already has 40 (newly) stored Black Oak acorns in their granary.

18 September

j404 seen at the spring this evening (possibly ♀)

2 October

1140. ① ♀ u6, ② ♂ y- / y- #108 here; watching.

1156. ③ ♂ ~~Or/M~~ Or/Blk #403; ④ ♀ <sup>Red?</sup> banded, prob. #404.

1223. ③ ♂ <sup>Red?</sup> yel-Red / yel-Red #104 (bands strange, as usual, but not the same as ♂108).

1225. Both ♂104 and 108 seen at once.

1300. Leaving. Still no decent look at 404, though I did for sure see a banded ♀ who I strongly suspect was indeed her.

14 November

1505. ♂ ~~Or/M~~ <sup>Or/M</sup> #103 seen sitting in the main area in passing.

② ♂ Or-Brn / Or-Brn #104.

3 December

1520. ♂ <sup>Or/M</sup> #403 down at the Arnold Spring.

1530. Watching.

1540. There she is: ♀ <sup>Red / Blue</sup> #404.

1545. I'm off to take a walk.

18 December

Counted stores: 450.

31 December

1600. Saw ♂ Or/Blk #403 here.

No acorn sample taken - maybe later when I can replace the ones I take.



1977

Walter D. Koenig

1

Melanerpes formicivorusKeep OutHastings Reservation15 January

Counted stores: 299. Not really enough to allow me to take a sample, though I may try switching some with Lambert.

Took a sample of 25, replacing them with acorns from Lambert's group.

25 January

180. 2 birds flushed from the vicinity.

26 January

1020. ♀ Red-Yel/R-Y #109 sapsucking in the Valley Oak just up along the fence line.

1032. Suddenly both ♀109 and ♂ LG/LB #118 flew to the granary.

✓ 10 March

Counted stores: 117.

21 March

1200. ♂ LG/LB #118 seen in the area.

7 April

945. ♂ in lower hole in the Live Oak. The time is almost here.

Stores are gone, as far as I can tell.

18 April

Nobody in holes.

19 April

1345. ♀ sitting at edge of new hole with foot in bill. She is banded: ♀ Red-LB/Red-LB ??, not unambiguously #109.

1355. Just up a ways in the forest (toward Near Lambert ~70m) are 2 birds sapsucking: ♀ Or-Yel/Or-Yel #109 and ♂ M/DG-Or #284 from Lambert, who may have been discouraged by the ♀, as he flew up and over toward Lambert away from the ♀ just as I noticed them.

24 April

1330. Bird in hole; also a 2<sup>nd</sup> bird in the vicinity.

26 April

915. Bird in hole.

1215. Nobody in hole. Lower hole in Live Oak opened, however, yielding 3 fresh eggs.

28 April

1645. Bird in hole, which was opened and still had 3 eggs.



1977

Walter D. Koenig

2

Melanerpes formicivorusKeep Out Nest Record

7 April 945

26 April 1215

28 April 1645

[Day 0] 6 May 1540.

11 May 1200

Hastings Reservation

♂ first seen in nest hole

Hole opened: 3 eggs, all fresh  
(=translucent)

① 24.8 × 18.8

② 25.1 × 19.1

③ 26.1 × 19.2

Still 3 eggs; bird incubating.

Egg 2, barely pipped, found below  
nest (see notes). Hatching has occurred  
in others (rasps heard.)Nothing left. Nest failed, unsur-  
prisingly, sometime ~~or~~ between  
6-10 May, certainly as a result  
of the weather (see Journal).





1977

Walter D. Koenig

38

Melanerpes formicivorusKeep OutHastings Reservation29 April

1450. Bird incubating.

30 April

1430. " "

3 May1145. " " . 2<sup>nd</sup> bird in granary.5 May

1700. " " . Flushed out but I heard no baby

wicker cries from inside.

There are, as before, no whole acorns that I can see still stored in the granary here. (Remember, however, that this same problem occurred last year when long after I thought these birds had run out of stores I saw them feeding acorn bits to their young).

6 May

1530. Flushed bird from hole. Walked over and heard some barely audible rasps: hatching has/is taking place. Looking down, in fact, there was an egg (mark #2) directly below the hole. A small chip in the side was in fact the beginnings of a pipping by the fully-formed embryo inside. Perhaps he is the first <sup>known</sup> casualty of the cold, windy, wet weather today and during the past several days.

10 May

1600. Nobody in hole, nor could I evoke any response from anything inside. I have little doubt but that the weather since 6 May (uniformly cold, wet, poor) has done this nest in. I'll have to wait until I can get the ladder up here to be sure and to see if anything remains, however.

11 May

1200. Opened the hole: nothing left but 1/2 an eggshell.

13 May

1315. Nobody seen here at all.

17 May

1650. " " " " "

1830. As I slammed the truck door shut I looked over to see a bird looking out of the lower hole. At least the group is still here!



1977 Walter D. Koenig

4

Melanerpes formicivorus

Keep Out

Hastings Reservation

- 21 May 1505. Nothing seen here.
- 24 May 1650. " " "
- 27 May 1310. ♂<sup>LG/LB</sup> #118 flushed from main granary.
- 31 May 1000. Nothing seen in passing.
- 5 June 1500. " " " "
- 17 June 1715. 1 bird flushed from in/near the nest area.
- 22 June 2015. ♀ in the most recent nest hole.
- 30 June 2000. ♀ flushed from nest hole (♀ Or-Yel #109 - bants seen, tho barely). No other activity in nest.
- 30 July Both ♂118 (pretty sure) and ♀109 (less sure) seen by Pam at the Spring this morning.
- 5 August 1645. ♂<sup>LG/LB</sup> #118 seen for sure drinking at the Arn. Spring.
- 24 September 1045. 76 new acorns counted in the granary here. Both ♂118 and ♀109 seen for sure together in the vicinity.
- 14 November 1500. ♀ Or-Yel #109 sitting in granary with a 2<sup>nd</sup> bird.
- 18 December Counted stores: 185. Not very impressive.
- 31 December 1600. Saw ♀ Red-Yel / #109 sapsucking in the area. There are still a few stores here, but not enough to run a sample.



1977. Walter D. Koenig

1

Melanerpes formicivorus

Lambert

Hastings Reservation

15 January

Counted stores and took a sample of 100 acorns:

Lam FT: 1581 (50 taken)

Hast FT: 1814 (45 taken)

Nest : 180 (5 " )

VO : 184

} 3759

26 January

1040. Watching.

1050. ♂ ♀ sub.

1105. ♂ ♂ DBLue-? / yellow-? #116. ♂ ♂ LP/LP #114.

1115. ♂ ♂ Or/?-Or-? #284. Also a tail-spotted, dark-eyed ♀, very possibly the other 1st-yr. bird. ♂ ♂ Or/DBLue #202 for sure.

1155. ♂ M / Red- again probably ♂ 284.

1158. These birds are doing some sapsucking now.

1210. It's a little too dark (because of the clouds) to continue watching. In any case, I pretty much saw everybody, including most likely ♀ 283 even though I never got bands from her.

9 February

Purge: ♀ 201. Last seen 15 June 1976, gone by 1 July.

→ Disappeared about 23 June ± 1 week.

This bird disappeared just after [her?] young fledged about 12 June, for completely unknown reasons.

10 March

Counted stores: Lam FT: 885

Hast FT: 1698

Nest T: 71

VO: 159

} 2813

7 April

945. Several birds here: ♂ ♀ orange, [#283?]

955. ♂ ♀ Or/Black #283 just chased a bird away from the nest area.

1001. ♂ sub intruder chased out by ♀ 283 from nest tree.



Melanerpes formicivorusLambertHastings Reservation

(7 April)

1010. A another displacement, this time done by ♂<sup>2</sup> De/Yel #116.

1030. ♀ub in nest tree eating an acorn

1035. ♂116 seen better; another chase taking place.

1040.

Leaving

Counted stores: Lam. fallen tree: 466 }  
 Hast fallen tree: 1420 } 1886

18 April

1030. Holes checked. Nobody seen in any of them.

19 April

♂284 seen at Keep Out.

24 April

1340. ≥ 3 birds flushed, inc. ♀ LP/Blk #283. Nobody in holes.

A ♀ub came by and sat nearby for several minutes (an intruder, I'm pretty sure).

28 April

1525. Several birds flushed from the main area, 1 or 2 possibly out of a hole, but I missed where.

29 April

1445. Nobody in any holes in the main nest tree.

3 May

1415. A few callers in the vicinity, but nobody seen for sure here and none found in any holes.

5 May

1700. Bird flushed from "nest" tree as I arrived, probably from the nest hole, whichever one it may be. Stayed and counted stores:

Lam. Fallen Tree: 96 }  
 Hast. " " : 1216 } 1312

6 May

1520. Nobody in holes.

10 May1610. Nobody in holes, nor could I ~~come~~ come up with any likely-looking Lambert individuals in the vicinity. I'm going to have to watch here.11 May

930. Watching from hide up on hill above nest tree. 2 birds flushed from Hastings Valley Oak as I arrived.

950. 2 birds in corner tree: ♀ BP-LP(n)/M #283 and a ♂.





1977 Walter D. Koenig

3

Melanerpes formicivorus

Lambert

Hastings Reservation

(11 May)

1050 ♀283 and another bird looking over Lambert fallen tree.

②♂LP/LP #114 there.

1058. These 2 just chased away an apparent intruder from the "nest" tree area.

1102. ③♀ub now looking over LFT.

1130. Raining. These 3 were the only birds around, and showed no indication of interest in a nest. I'm leaving.

13 May

1330. Nobody in any holes, but there were 2 birds in the large tree along the fence just up from the '75-76 nest tree who might have been up to something. There are, of course, several holes in that tree as well (one of which has a Nuthatch nest in it).

17 May

1700. On my second pass I flushed a bird from the top of the nest tree; otherwise zilch.

19 May

1000. Trying again.

1045. ♂ and ♀ hawking from Hastings Valley Oak granary. ①♀ub.

1055. A ♂ sitting atop the Middle Tree is probably of this group. (He's banded, and I think is ♂114).

1102. ♀ub hawking from LFT. ②♂LP/LP #114 now in Hart. VO for sure.

1110. Both ♀♀ on LFT now: ③♀red, #283.

1150. 2 birds hawking from Middle Tree.

1200. Leaving. The continued presense of any of the 3 ♂♂ here is beginning to look doubtful.

21 May

1510. 1-2 birds possibly flushed from top of Nest tree, but none found in a hole anywhere.

24 May

1700-1730. Thought I might have flushed a bird from a hole in the large Valley Oak granary on HNHR, so I watched it for ½ an hour; a ♂ came and sat on top of it, but there was no further hint of a nest.



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Walter D. Koenig

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Melanerpes formicivorusLambertHastings Reservation27 May

1315. 2 or more birds in the vicinity, but no one in any holes.

Later I climbed up into the Valley Oak granary on HNHHR to discover the nest hole opened by Michael way back when (I hadn't even known this particular hole existed!) So I opened it, just to make sure, and found all the makings inside of a Woodrat nest, but nothing relating to woodpeckers.

31 May

1010. Nothing seen in a brief check of all the holes.

1 June

2020. 22 birds roosting in one of the holes in the Valley Oak along the fence line up from the '75-'76 nest tree.

5 June

1515. Nobody in any of the holes here.

7 June

1145. Still nobody seen here in/out of a hole.

✓ 10 June

2000. Counted stores: 355, all in the Hastings fallen tree. So where the hell's their nest??

At dusk, I flushed 1 bird out of a hole in the upper Valley Oak along the fence; it may be the nest, as best I could tell a single bird insisted on returning there a couple minutes later to roost. I don't know where anyone else roosted, even though I checked the other areas.

11 June

1900. Saw nobody up here. Watching here is ~~soon~~ <sup>rapidly</sup> becoming a must.

12 June

1935. ♀ in that same hole in the tree up along the fence from the main nest tree. Surely this is it (but I'll have to wait until at least tomorrow to open it and know for sure).

13 June

1100. Even though nobody was in the hole, I went up and opened it. It is a nice hole, but there's nothing in it yet. The mystery remains unsolved for now.

15 June

1915. As usual, I see no one in or near any holes here.



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Melanerpes formicivorus

Lambert

Hastings Reservation

(15 June)

However, there is a very interesting thing here: looking out of one of the various holes in the Valley Oak up along the fence line is a small Copher snake, with his head  $\approx 2''$  out of the hole entrance. Now, I daresay I've never seen any bird at this particular hole (much less a woodpecker) but this certainly proves to me that these beasts can get up to some of these holes and could be a source of nest loss for hole-nesting birds including Acorn Woodpeckers. This hole, by the way, is in the main trunk about 22 feet up directly above the base.

13 July 1977  
could have  
been a striped  
Racer  
(Masticophis lateralis)  
In fact, I now  
think that the  
latter is more  
likely.

17 June

1720. 2 birds flushed from the area, but still no one in a hole, as far as I could tell.

18 June

1730. Came back to look at the hole with the ~~Copher~~ Snake in it again. The tree is a Valley Oak, 86.7cm DBH.

Height of hole above ground: 6.65m

Diameter of hole: 4.5cm

Depth of hole: .50m

Hole was rather large inside. Bottom was full of wood-chips, rat droppings and several twigs with oak-buds at the tips of the branchlets.

22 June

2100. Possibly 4 birds here at dusk;  $\geq 2$  roosted in the hole I cut open in the Valley Oak up from the old nest tree.

30 June

2005. Nobody seen in any holes.

3 July

700. Watching from hide.

825. No one at all coming to main area. I'm going to walk around.

835. Just across the swirl were 3 birds in the trees; two were identified as IP-WH(u)/M #283 and Or-De/Or #284.

12 July

1000. Walked up to discover that the old holey nest limb in the Valley Oak right along the fence has broken and fallen





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Walter D. Koenig

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Melanerpes formicivorusLambertHastings Reservation

(12 July) (destroying the fence) taking with it the 1975, 1976, and one of the earlier nest holes with it. (What impresses me is that the birds here have seemingly been avoiding this limb all spring - roosting up the fenceline in the next Valley Oak and so forth - an odd coincidence, to say the least.) It clearly fell within the last several days. I'll be back up soon to cut open the '75 nest hole and to explore further - the other 2 known nest holes in this limb both were split in half. The '76 hole had nothing except 1-2 woodrat pellets in it, while nothing was seen in the other. One of the lower holes does have a bird-like nest built inside it (which remains in the tree) made of lichen & mostly small grass stems. Perhaps an old bluebird or swallow nest?

✓ Otherwise I counted stores, of which 600 remain in the Hastings Fallen tree.

25 July

915. Watching. 1 bird flushed when I arrived.

1145. A ♂ hawking over in Middle tree: a little too far for a real convincing view, but he appears to be ♂<sub>light/light</sub> #114.

1210. A bird seen briefly in the Hastings Valley Oak granary displaced an intruder in a nearby tree.

1213. Now in Middle Tree: ♂<sub>Pinkish/White</sub> #283.  
♀<sub>Pinkish/Blk.</sub>

1221. ♂<sub>LP/LP</sub> #114 back in Middle tree.

1226. Now ♀283 back in Middle Tree.

1230. I'm getting a little tired of this. Activity is not spine-gripping here. Waiting until acorn-storing season (mid-September) to try again seems like a good idea. In any case, no unexpected babies have showed up, which is certainly a relief.

30 July

♂284 and ♀283 both seen at the Spring this morning.



1977. Walter D. Koenig

7

Melanerpes formicivorus

Lambert

Hastings Reservation

24 September

1100. Counted stores: LFT: 14 (new)

"Nest T": 1 ("")

HFT: 528 (many new -  $\frac{1}{3}$  to  $\frac{1}{2}$ )

VO: 8 (new)

Total: 551

The only bird seen nearby was ♂ LP/M #114.

30 September

1830. ♀ Pink/M #283 seen here.

3 October

1140. Watching. ♂ LP/M #114 seen. A fair amount of chasing, both inter- and intra-specific going on. The Jays, in particular, are making off with lots of acorns from the area.

1150. ♂ M/O-r #284.

1156. ♀ Pub here in Valley Oak on HNH/R side; chased Steller Jay.

1214. ♀ Pub storing here now in VO.

1230. Occasional chases of other AW intruders going on. The Jays (both flavors) still being chased a lot.

1245. Going to move hide and to check the net at A1. As in other situations that I've seen like this, the woodpeckers are clearly losing out to the Jays, of whom there are just plain too many for them to effectively exclude.

1305. Back again. Jays are clearly coming to 2-3 Valley Oaks here at the "corner" that are loaded with acorns.

1315. ♂ LP-WN(W)/Bk #283. ♂ 114. ♀ Pub. ♂ 284 after quite a while.

1405. I'm beginning to be convinced, having seen no one besides these same 4 birds about 10 times each by now. Both ♂ 116 and 202 are somewhere else.

8 October

Set up for an ambush here last night, watching (all) 4 birds go into the hole in the tree up from the old nest tree.



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Walter D. Koenig

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Melanerpes formicivorusLambertHastings Reservation

(8 October)

Unfortunately, I messed up in closing the trap, letting one bird go — needless to say it of course turned out to be the ub ♀. In any case, I did measure and handle the other three (♂114, ♀283, ♂284). While I was doing that (745-815 or so) a small revolution had already started with >5 or so birds getting chased around in the area by the ub ♀ (who I saw later on). Some chasing was still going on at 900, 1/2 an hour after I'd let everyone go, but not nearly as much — the released birds seem to have been able to calm things down very quickly. Nonetheless, despite the season it was clear that ~~new~~ new recruits were readily come by and were already queuing up to get in the group as early as 1 hour after dawn!

900. Watching now. Still some chasing.

or possibly  
→ #97! (see below)

907. One intruder seen: ? Blue-White/Red-White #358 ♀ (caught at the Near Lambert revolution 7 April, not seen since). This bird flew to near the middle tree, then headed off away from me.

925. Leaving. Still chasing going on, but things do not seem to be escalating. Several ub birds seen, inc. ≥1♂ and ≥2♀♀.

\*The banded intruder seen above at 907 may also have been (and in fact very possibly could have been) ♀97, a bird banded as an adult at Black Oak in 1972 and not seen there since 1973!!! Unfortunately I have no good way to tell at this point; clearly ♀358 seems more probable on a purely logical basis.

Purge: ♂202. Last seen on 26 January, gone by 7 April  
→ Disappeared about 3 March 1977 ± 1 month

♂116. Last seen 7 April, gone by 11 May →  
→ Disappeared about 24 April ± 2 wks



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9

Melanerpes formicivorus

Lambert

Hastings Reservation

18 December

Counted stores: Lam. Fallen tree: 276

"Nest tree": 109

Valley Oak: 35

Hast. Fall. Tree: 1024

} 1444  
sum

✓  
31 December

Took a sample of 33 acorns from the Hast. Fallen tree. One bird was seen in the vicinity.





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Melanerpes formicivorus

Arnold 3

Hastings Reservation

25 January

1400. Counted stores: N fork: 1496  
M fork: 1346 } 4212  
S fork: 1370 }

25

I also took a sample of 100 acorns and was able to identify ~~the~~ marked acorns from last year still stored and intact.

14 February

1230. Up along the flat area toward the top is ♀<sup>DB-wh(w)/DB</sup> #290.

16 February

915. Watching

930. 2 birds in Valley Oak with hole just above me: ① ♀ub and ② ♀<sup>M/or</sup> / #289. Also a ♂ over by UAZ.

932. There are several birds over at UAZ at the moment.

952. ③ ♀<sup>DB-wh(w)/DB</sup> #290 is here; first she displaced an intruder and then she remained in the area eating some oak buds.

1010. ④ ♀<sup>Mauve/Yellow</sup> #207 hawking here.

1045. Finally one of the ♂♂: ⑤ ♂<sup>R-w/Bk-crm</sup> #120

1115. Leaving.

26 February

See UAZ notes for A3 birds seen there.

10 March

Counted stores: N Fork: 1311  
M fork: 996 } 3615  
S fork: 1308 }

13 April

1500. Counted stores: N fork: 911  
M fork: 694 } 2636  
S fork: 1031 }

18 April

1100. Nobody seen, in or out of holes.

19 April

1000. Watching.

1010. A ♀ came by briefly: ♀<sup>wh/DB</sup> blue, probably ♀290. More noise over at UAZ than here.



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Melanerpes formicivorusArnold 3Hastings Reservation

(19 April)

1015. ♂<sup>yel/DB</sup> #128 flew over to Blue Oak perch tree (between granary and nest tree) and began sapsucking.

1020. Now ♂<sup>LB-WN/Blk-LG</sup> #120 sapsucking in same area.

1032. ♀128 preening in granary. 2 other birds, both banded, here also.

1046. ~~♂~~ ♂<sup>M/LBlue</sup> #204 now sapsucking.

1050. ♂<sup>M/Or</sup> #289 sapsucking.

1100. ♂<sup>DB-WN(W)/DB</sup> #290 over in sap tree eating oak buds.

1130. ♀ landed at '75-'76 nest hole briefly.

1140. Pretty fair looks at 3 more birds in the granary together: ♂<sup>ub</sup> ♂<sup>DBblue/light</sup> #123, and ♂<sup>ub</sup>.

1200. ♀ at the <sup>old</sup> nest hole again. Birds are occasionally flying away toward UA2, where I am now going to move. There is a slow, steady stream of birds in and around here; there are even no doubt a few more than I saw. (I suspect that a couple may be at UA2).

1330. ♀128 at nest hole as I walked by.

24 April

1400. Nobody here, but lots of birds over at UA2 are certainly from this group. See UA2 notes.

26 April

See UA2 notes. Nobody in holes here. [4 ♂♂, inc. ♂122 at UA2]

28 April

1530. Nothing seen in passing.

29 April

1500. " " " "

3 May

1425. " " " " , though 2+ birds over the knoll on lamberts (see map on back) may very well have been A3 birds.

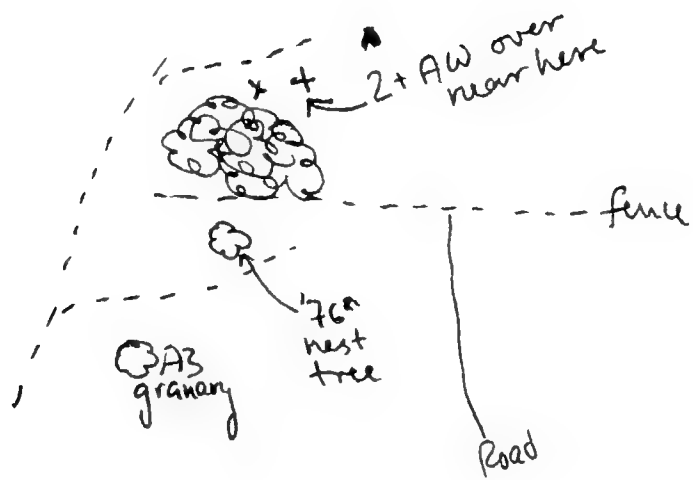
4 May

1930. Bird in '75/'76 nest hole. Could be it, folks.

5 May

1730. No one in any holes. Counted stores:

3 May 1425



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Walter D. Koenig

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Melanerpes formicivorusArnold 3Hastings Reservation

(5 May)

N fork: 789

M fork: 626

S fork: 816

2231

6 May

1515. Nobody in holes.

10 May

1615. Nobody here in holes or otherwise.

1720. 3 birds flushed from main storage area this time.

13 May

1115. A bird flushed from the '75-'76 nest tree, presumably from a hole, but not the old nest hole. No nestlings heard from below.

1310. Nobody here this time. A down feather stuck at the edge of the old nest hole indicates some kind of usage there, at least.

17 May

1800. Several birds in the main granary flushed in what appeared to be a direct beeline toward UA2. No one was there either, though, except for a bird in their hole (see UA2 notes).

19 May

1615. Nothing.

21 May1520 - 1535. Sat and watched behind the tree on the knoll. At one point 5 birds were. ~~in~~ in the granary, inc. 3 ♂♂. As it happens, I only identified 1 bird: ① ♀ Mauve/Wn-Red #207, the 2nd-yr ♀ I missed in April.

1540. Now more: ② ♂ Blue/ - #204, who took an acorn and flew over toward UA2 with it.

1600. Don't understand entirely what's up, but they certainly do not seem to be interested in any holes here, or even anything across the canyons. They are flying over by UA2, though, where I will check next.24 May

1650. 2-3 birds in the granary here again. Nobody in holes.

27 May

1415. Nobody anywhere. I'm going to have to watch soon.

31 May

1030. 4 birds were in the tall Valley Oak perch tree by the





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Walter D. Koenig

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Melanerpes formicivorusArnold 3Hastings Reservation

(31 May)

fenceline; identified were ①♂<sup>ub</sup>, ②♂<sup>LB/M</sup> wn/Red #205(!), and ③♂<sup>light-bk/or</sup> #289; a 2<sup>nd</sup> ♀ was here also. They were hawking and seemed to be going to a large thicket on the other side of the fence, which I'm going to check out.

1155. Watching from hide. I can't believe there's not a nest here somewhere or other.

1325. Have been following several birds, who have been going all over with no obvious bias. In the process, I identified ①♂<sup>Red-wn/blk-LG</sup> #120 and ⑤♂<sup>wn/m</sup> #125, who were both in/near the granary for several minutes. For now, I'm going to explore the canyon for a while (around South Ravine) and look for any promising holes. If not I'll have to try again soon.

I returned at dusk to see what I could find from roosting. Birds definitely did roost in 2 holes in the tall Valley Oak by the fenceline, and at least 1 bird went in a strange down-hanging knothole in the '75-76 nest tree, but no one roosted in the old nest hole best I could tell.

1 June

~~1800~~ 2000. 2 birds flushed from the hole in the broken off limb of the Valley Oak next to the granary! Keep your fingers crossed.

5 June

1530. Nobody seen in any of the holes here.

7 June

1100. This time, a bird was in the hole in the broken off limb in the Valley Oak again, so I opened it to find 4 fresh eggs! Finalement!

11 June

1530. Bird in the hole.

12 June

1800. Bird in the hole. Hole opened; still the same 4 eggs, all opaque and incubated.

13 June

1130. Watching from hide. Bird in nesthole.



1977 Walter D. Koenig

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Melanerpes formicivorus

Arnold 3 Nest Record

1 June 2000

7 June 1100

12 June 1800

17 June 1800

Hastings Reservation

Birds first seen in hole.

Bird in hole, opened: 4 eggs, fresh

① 26.1 x 19.9

② 28.1 x 19.5

③ 27.1 x 20.3

④ 28.1 x 20.2

Still 4 eggs; all opaque

Nest failed; eggshells present in hole,  
no sign of young themselves.



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Melanerpes formicivorus

Arnold 3

Hastings Reservation

(13 June)

1135. 2 birds showed up right away in the granary: ① ♂<sup>M</sup>LB/M #205 and ② ♂<sup>M</sup>LB/RW #204.

1155. Same 2 birds plus ③ LP-WH #120 in granary.

1235. ♂204, a ♀, and ④ ♂<sup>DB</sup>DB/M #123 in granary. ♂123 eating an acorn peacefully. That's what I suspected: UA2 birds are getting some extra acorns from A3. (Of course, the precise relationship here is still unclear at best).

1250. 2 ♀♀: ⑤ ♀<sup>Mauve</sup>Mauve/LP-Red #207 and ⑥ ♀<sup>Yel</sup>Yel/ #128.

1330. ⑦ ♀<sup>M</sup>M/O #289.

1400. That probably isn't everybody (I particularly have to find the unbanded ♀, and catch the ♀ at UA2 to show they aren't the same bird) but it should do until the babies here hatch in another week or so.

16 June

See UA2 notes for brief discussion of the split to UA2.

Purge. ♂♂121, 123, and 126 → all Moved to UA2 ≈ 4 April 1977 ± 2 weeks.

17 June

1800. After just discovering the failure at UA2 and noting nobody in the hole here, I went up to discover that the nest has failed here as well. Inside were broken eggshells, indicating that hatching had indeed occurred, but otherwise rien. Suddenly it occurs to me that conditions up here (meaning presumably insect abundance, weather, or both) ~~are~~ <sup>must</sup> be much worse this year than I'd thought; if A3 loses its babies right away no wonder Lambert hasn't even tried! (Making Big Tree's feat of fledging 3 even more impressive!) With only A1's 2<sup>nd</sup> attempt totally in the air, the Arnold groups may fledge no more than 8 babies altogether this year.



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Melanerpes formicivorus

June (17 ~~June~~) Arnold 3 Hastings Reservation  
compared to about 28 in 1975 and even 19 or so last year!  
940. Counted stores: N fork 248 }  
M fork 346 } 1095 A goodly amount  
S fork 501 } lower since last  
I counted for sure!

30 July 1800. A banded ♂ flew from the small tree where I always put the hide over toward UAZ.

20 August 1210. ♀♀ 289 and 290 over at UAZ. (!)

1 September ♀ <sup>Mauve/LP</sup> " / " ~~see~~ #207 seen by PLW at the Arnold Spring.

24 September 1200. Counted stores: N fork: 66 }  
M fork: 44 } 207. Amazingly low.  
S fork: 97 } Many are new, but I  
don't think they ever ran out completely. No birds were  
seen, except for ♀290 over at UAZ again.

2 October ♂♂ 122 and 204 at lower Arnold 2, where they seem to have moved to! See LAZ notes.

8 October 945. Watching from hide.  
1002. ① ♀ DBW(n)/DBLW #290. ② ♀ <sup>Mauve/Yel-Red</sup> #207. ③ ♀ <sup>Yel/Blue</sup> #128.  
④ ♀ <sup>Or-De/or</sup> #289. All working stores in the granary.  
1015. ⑤ ♂ <sup>Reddish-brown/Blk-ann</sup> #120.  
1025. ⑥ ♂ <sup>Wh/Blue</sup> / <sup>Wh/M</sup> #126. This character is sure getting around!

I saw him last week at LAZ (he had previously moved to UAZ last spring). He's here now along with ⑦ ♂ <sup>B/R-W-R</sup> #204 (who was also at LAZ last week!) pecking at an acorn.

1100. ♂ 204 is here regularly, but ♂ 126 hasn't been seen again so far.

1115. Back from checking nets.

1125. Being seen regularly are ♂ 204, ♀♀ 207, 289, 290. ♀ 128 seen again.  
♂ 120 seen again, too.





Melanerpes formicivorusArnold 3Hastings Reservation

(8 October)

1203. ♂ Red/DB-Yel(n) #121 sitting here in '77 nest tree for several minutes, then flew off towards UA2.

1209. Some activity heralded a Cal Ground Squirrel (big) walking around up in the granary. 6 of the AW were quite upset, and would fly over and hit the beast, apparently with their feet and claws, up to 2 or 3 times in rapid succession before landing one or two feet away. All six took turns at this bannage. The squirrel, however, seemed relatively non-plussed by the whole event, and continued sniffing around at storage holes for ~~some~~ a minute before he finally disappeared into a hole in a rotten limb.

1210. ♂ 121 in granary now!

1215. Leaving. Looks good - all banded birds are here except for ♂ 205, whose disappearance doesn't seem improbable. No unbanded birds were seen at all! The disappearance seems too good to be true for the moment however. Obviously the biggest problem now is to find out who's still living at UA2 and who's moved to LA2.

1225. Flash: ♂ a ♂ with a hurt left leg and a M band on left leg - most likely ♂ 122. What's going on down at LA2 I wonder? As for here, the birds are quite active and are storing a lot.

1230. ♂ 126 here again for sure in granary. Squirrel came out to be similarly attacked twice more.

6 November

Purge: ♂ 122, moved to watched group (LA2) ~~about~~ 25 Sept. ± 1 wk.

14 November

1120. Watching.

1145. ♂ Yel/n #128 and ♂ or DB/or #289 in granary together.

③ ♀ DB-wh(n)/DB #290



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Melanerpes formicivorus

Amot 3

Hastings Reservation

(14 November)

1152 ♂ ♀ Mauve/LP Red #207.

1215 ♂ ♂ CW/DG-RL #120

♀ 889, by the way, looks more like ♀ LP-DS/Or than CW-DS/Or.

1230. There were 2 ♂♂ together for a minute for sure (1 possibly unbanded).

♂ 120 here again, no doubt one of them (the other begged <sup>submissively</sup> while next to him).

1240. Well. 2<sup>nd</sup> male is ♂ Red/DS-w/ln #121. Maybe he hasn't quite decided what to do yet. He is spending sometime working stones.

1245. Leaving. Still some doubt about ♂ 204 (seen at LA2 but not here) and ♂ 121 (seen both at LA2 and here), but otherwise the group looks pretty good with 1 ♂ and an amazing 4 ♀♀ - all banded! (♂ 205 and, very impressively, the at ♂ and ♀, all seem fairly conclusively to be gone).

26 November

Purge: ① ♂ unbanded. Last seen 31 May. Gone (best I can tell) by 8 October → Disappeared about 5 August ± 2 months.

② ♀ unbanded. Last seen 19 April. Gone by 13 June → Disappeared about 16 May ± 1 month.

③ ♂ 205. Last seen 13 June, gone by 8 October → Disappeared about ~~10 August ± 2 months~~ 31 July ± 1 month.

Very possibly this bird left soon after the nest failure, conceivably with ♂ ub.

18 December

Counted stones: N fork: 2286  
M fork: 1578  
S fork: 1759

5623  
~~5623~~

The general scarcity of stored acorns up here is certainly not reflected in the stores here!



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Melanerpes formicivorus

Arnold 3

Hastings Reservation

31 December

Took a sample of 100+ acorns out of the granary, which survived the storm o.k. One bird was flushed when I arrived.





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Melanerpes formicivorusUpper Arnold 2Hastings Reservation25 January

No birds; no stores; presumably still no group.

14 February

1010. One, possibly 2 birds here in the nest tree. Both flushed before I could get a look at them.

16 February

Arnold 3 birds are flying over here and sitting here regularly; apparently they're sapsucking in a tree here among other things. I was unable to identify any of the birds actually here, however.

26 February1100. One ♂ here; banded, ♂<sup>Or/Light-?</sup>? He flushed off towards Bianca, however, and it wouldn't surprise me too much to discover he was ♂214 from there. Maybe he'll move in?1315. Several A3 birds here: ① ♀<sup>M/Red</sup> #289, ② ♀<sup>DB-WH(W)</sup> #290, and ③ ♂<sup>WH/DB-WH</sup> #126.10 March1100. ♀<sup>M/Red</sup> #289 flushed from here, flew back towards A3. No stores.21 March

1215. Several AW here (3), but none identified before flushing.

1220. ♀ub just flew to the 2° storage tree (!) here. Checked out the whole tree as though she were looking for acorns and then flew to the 1° storage tree.

1235. Nobody else has returned as yet. Leaving.

No sooner said than the unbanded ♀ returns to view and a 2<sup>nd</sup> ♀ shows up in the first nearby. Clearly I'll have to do some serious watching here fairly soon.13 April

1450. No stores or birds.

17 April1110. Not only did one bird flush from here, but a 2<sup>nd</sup> (a ♂) is in the [opened] nest hole in the Valley Oak. This all better be checked soon.

1600. 3-4 birds flushed from the area. I opened the hole (lowest one) and found nothing, however.



Melanerpes formicivorusUpper Arnold 2Hastings Reservation18 April

1110. Nobody seen/heard in the vicinity. Holes empty.

1115. No sooner written than 3 birds pop up from nowhere in the nest tree: an ub ♂, a banded ♀ (wh/DB-wh? ?) \* and a 3<sup>rd</sup> bird, being displaced by the ♀. Something's up here after all.

\*Perhaps ♂126? Not a ♀ at all? [Yes, - no doubt]

19 April

1215. 1 bird flushed from the area when I arrived. Watching.

1230. Some calls. ♀(ub?) in tree; ♂ in nest hole. ♀ landed at nest hole, went inside with ♂. Then ♀ sat looking out for a minute, gave a Carrick, flew out and off with a 3<sup>rd</sup> bird, possibly an intruder. The ♂ then looked out for a minute before flying off himself.

1245. Several birds just returned, Inc. ① ♂ Red/DB-wh(n) #121 (A3).

1246. ♀ in hole now. ② ♀ ub. Just flew out. Still very possibly a 3<sup>rd</sup> bird here.

1255. ♀ ub landed at hole briefly but did not go inside.

1315. Leaving. Things look pretty promising here for a group made up of 1 new ♀ and 1-2 ♂♂, one or both from A3 (♂121 + ?). Nothing going on presently.

24 April

1400. 4-5 birds here in the storage tree and in a sap tree up near the top of the area (no doubt A3 birds). Watching.

1430. ① ♂ wh/DB-wh #126 here plus several others.

1500. Despite birds being around, they hid well enough so that I only saw one other: ③ ♂ DB-blue/wh #123 (presumably).

26 April

925. A bird was Carricking (Urking?) as I arrived, but I didn't see it.

930. 3 birds in "nest" tree: ① ♀ ub, ② ♂ DB-yl(w)/m #121, and



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Melanerpes formicivorusUpper Arnold 2Hastings Reservation

(26 April)

③ ♂ <sup>DB</sup>Blue / <sup>W</sup> presumably #123.1000. 3 birds back in granary, then flew down just across South Ravine. Maybe a 4<sup>th</sup> bird here also.1005. ③ ♂ <sup>DB</sup>Blue / <sup>W</sup> #123.

1015. Someone is still upsetting these birds, but I'm unable to get a fix on an intruder. But at least 2 more A3 birds arrived, inc. ④ ♂ <sup>Wh</sup> / <sup>DB-Wh</sup> #126 and → ⑤ ♂ <sup>Or</sup> Bad leg #122! the latter had a small reddish ant crawling around in his neck, and was using his tail to help him maintain his balance.

These other A3 birds were not being chased best I could tell. 1030. Leaving. Things are quite interesting here; it will be neat to see who (which of the ♂♂) stay for good.

28 April1540. 22 birds flushed from here, inc. ♂ <sup>DB</sup>Blue / <sup>Light</sup> #123.29 April

1505. ♀ in lowest hole in the Valley Oak; no other birds in evidence.

30 April

1425. No birds in hole; 1-2 probably flushed from the area, though.

3 May

1440. At least 3 birds flushed from the tree with the holes, but nobody was inside.

4 May

1930. Noone seen here in a brief pass.

5 May

1800. 1 ♂ in hole and another (banded) in the small granary up the hill from the hole tree; it might be worth checking this hole again after all.

6 May

1510. Bird in hole. It's about time to go up and look again.

10 May

1620. Nobody here at all, for once.

13 May

1125. ♀ flushed up at the upper end of the area, but nobody else seen and noone in the hole.





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Melanerpes formicivorusUpper Arnold 2Hastings Reservation(13 May)

1400. Went ahead and looked in the hole: nothing.

17 May

1800. Bird in the hole. I'm beginning, once again, to believe they have a nest going. The only question is, "who is 'they'?" Is this in fact an autonomous UA2 group or <sup>is</sup> it presently incorporated as part of A3, where I have been unable to find any trace of a nest?

19 May

1620. 23 birds here, but none in the hole. ♂ DBLue/Light #123 seen. Birds sitting in the old mostly unused granary and the tall Valley Oak "nest" tree.

21 May

1615. I had high hopes by the time I got here (see A3 notes) but all loose birds had flushed by the time I rumbled by and nobody was in the hole(s).

24 May

1650. 1 bird flushed from the tree with the holes, but none in the holes.

27 May

1420. Nobody seen here. (though I thought I'd heard a Garrick from here while at A3 a minute before).

31 May

1030. Nobody seen here in passing.

1 June

~~1800~~ 2000. Bird (♂) in the hole in the lower Valley Oak.

5 June

1540. Bird in hole again.

1630. Came back, opened hole: 2 eggs - both opaque, shiny, and incubated!

7 June

1200. Bird in hole.

11 June

1535. Watching hole to see who's in the group. ♂ in hole.

1605. 4 birds here, all bringing food for babies. Seen were ① ♀ ab, ② ♂ Red/DB-WN(in) #121, and ③ ♂ DB/WN #123 (check this guy - the upper right band looks too white to be Blue-Green). The 4th bird, a ♂, was the one in the hole at the onset and wasn't seen.





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Melanerpes formicivorusUpper Arnold 2 Nest Record

1 June 2000

5 June 1600

Hastings Reservation

Bird in hole (see May notes also)

Bird (♂) in hole; 2 eggs, shiny, opaque  
and incubated

① 26.6 × 20.4

② 26.0 × 20.2

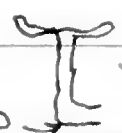
17 June ~~1900~~ 1730

1 dead baby in hole; see notes.

Weight: 36.3 gm

Wing length: 17 mm

Culmen: 13.5 mm

Tarsus: 21.6 (24.3 to )

Hallux: 12.6 (15.9 w/ claw)

The dead baby's gizzard was full of insect parts and some  
acorn bits - it sure doesn't look as though he starved!



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Melanerpes formicivorus

Upper Arnold 2

Hastings Reservation

(11 June)

1632. ♂<sup>DB/WH</sup><sub>DB/M</sub> #123 came back into view; ♀ left hole.

1655. ♂<sup>Red</sup><sub>DB-WH(W)</sub> #121 came; I saw no food in his bill, and I hear no rasping from the nest. Possibly they haven't hatched yet after all.


1702. Somehow, one of the ♂♂ showed up atop the nest tree briefly with  $\frac{1}{2}$  a shelled acorn! (I still wonder if they're not snitching them from A3).

1707. ♂123 in hole, ♂121 left.

1709. Think I just missed the 3<sup>rd</sup> ♂ again. Am going to concentrate on seeing him now.

1725. ♂123 went into hole with a big billful of food this time. Surely they have indeed hatched.

1835. After 3 hours, I guess I'm just as well off getting this 4<sup>th</sup> bird next time. In any case, these are clearly the only 4 birds paying much attention to the nest at the moment:

This 3<sup>rd</sup> ♂ has a definite mustache on the left side of his face that the others don't:  It's very obvious when he's looking out of the nest hole.

12 June

1700. Back watching nest again. After that 3<sup>rd</sup> ♂.

1708. Got him: ♂<sup>White</sup><sub>DB/Blue-White</sub> #126 went in hole; ♀<sup>ub</sup> now looking out. This now becomes even more interesting, as I saw this bird over at A3 at the end of May (31 May). In any case, these 4 birds should be put here. (I also wonder about the likes of ♂122 who I saw here on 26 April and have yet to see over at A3 this year).

Made the ♂ look out of the hole before I left: it is the bird with the mustache. Also, definite rasps from the nest proved conclusively



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Melanerpes formicivorusUpper Arnold 2Hastings Reservation

(12 June) that the babies here have hatched.

16 June

A list of who's been seen here when:

♂120. Never seen here; always at A3

♂121. Seen here 19 April, 11 June. Not seen at A3 this year.

♂122. Seen here 26 April. Only sighting this year.

♂123. Seen here 24 April<sup>28 April</sup>, 11 June (feeding young). Seen at A3 19 April and 13 June.

♂126. Seen here 26 Feb., 24 April, 12 June (feeding young).

Seen at A3 on 31 May.

♂♂204, 205. Never seen here (this year)

♀♀<sup>207</sup>128. Not seen here this year.♀289. Seen here 26 Feb., 10 March; at A3 16 Feb, 31 May<sup>19 April 13 June</sup>.

♀290. Seen here 26 Feb. At A3 16 Feb, 19 April.

♀ub. First seen here 21 March. I think I am going to use her as the key; on 21 March "several AW [were] here..." including an ub ♀ plus a 2<sup>nd</sup> ♀. Prior to this only misc. A3 birds were seen here; afterwards birds were regular enough such that I checked the present nesthole as early as 17 April. So - add an unbanded ♀ and ♂♂121, 123, and 126 (all 4 of whom have been seen at the nest) as having moved to UA2 on 4 April (±2 weeks). The status of ♂122 is uncertain and may be difficult to ascertain because of his leg; but he may very well be a resident here (more so than at A3) as well, with a decision on him still to be made.

17 June

1730. 1 ♂ in storage tree, a 2<sup>nd</sup> in the hole. Inside the nest, however was one dead baby, relatively fresh (see measurements on p.5) It was pecked, esp. around the left leg and right hip, but these





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Melanerpes formicivorus

Upper Arnold 2  
~~Lower Arnold 1~~

Hastings Reservation

(17 June) certainly could have been inflicted post mortem, as it were.

~~Its~~ Its eyes were just opening and it was at the stage where the 1° were ~~just~~ not quite poking through the skin. Obviously this bodes poorly for this group; but with no stores at all it's pretty amazing they made it as far as they did. The carcass was kept so I can look at it more carefully later on.

12 July 930. Nobody here in passing.

30 July 1800. One bird (a banded ♂) flew over here from A3; otherwise none seen here.

1 August ♂126 seen at the Arnold Spring this morning by Pam.

14 August 4 birds seen in the vicinity in passing, but none were identified.

20 August 1210. ♀♀289 and 290 (2<sup>nd</sup> yr ♀♀ from A3) seen in the nest tree ~~at~~ ~~near~~ here.

18 September ♂123 seen by Pam at the Arnold Spring this morning.

24 September 1145. 1 ♂ and ♀ <sup>DB-WK(u)/DB #</sup>290 seen here. There are definitely at least 2 newly-stored acorns here in the granary.

30 September Still only a bare minimum of new acorns stored here (≈3 or 4)

8 October Still essentially no acorns stores here, but 1 bird did flush from the granary when I approached.

24 October 1015. Found 3 stored acorns; hardly enough to convince me there's a group here. The active presence of all the ♂♂ here down at LA2 makes me even more suspicious. See LA2 notes.

14 November Still no stored acorns or group. All the ♂♂ are down at LA2, coming up this way only to pick acorns.

The top of the nest tree here has fallen w/in the last 3 weeks. The nest hole is intact, however.



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Melanerpes formicivorusUpper Arnold 2Hastings Reservation26 November

This group seems to have disbanded soon after the nest failure on about 17 June. As early as 12 July there was little evidence of there being a group here. A good estimated date would seem to be 29 June  $\pm$  1 week.

3 December

1555. A bird flushed from the granary here, but there are still no stores, and I don't think he was indicative of anything major.

18 December

No stores. No group.

31 December

Still nothing here.



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Melanerpes formicivorus

Lower Arnold 2

Hastings Reservation

15 January Florence saw LBRW #215 plus 2 other birds here in wandering around this afternoon.

✓ 25 January 1300. Watched for 15 minutes or so but saw none. In the granaries, 315 acorns were counted in the outer Blue Oak; the inside tree has been completely cleaned out. A moderate sized limb had fallen from the Blue Oak from which I took a sample of 47 or so acorns (70 or so had been lost).

26 January 1220. Watching.  
1232. ♀ came to perch tree karrit-cutting. ~~karrit-cutting~~.  
1250. ♀ is ♀ Yel/Drk, presumably #213. I'm going.

• 10 February 945. Watching. 2 birds here briefly a few minutes ago.  
1007. Simultaneously they all showed up in the storage tree: ♂ Red-DB/M #133, ♀ LP/DB-WH(n) #213, and ♀ LBRW #215.  
1010. Leaving.

✓ 10 March 1145. 3 birds flushed from the outer Blue Oak, where I counted 171 acorns remaining.

✓ 13 April 1445. Counted stores: 188. Apparently they haven't been used much in the last month.

18 April 1130. 1 banded ♂ in perch tree; none in any holes.

24 April 1500. Nobody seen.

26 April 1045. Watching.

1100. ① ♀ Or / Blue-wh(n) #213; 1-2 others behind her in the forest.

1120. ② ♀ LBRW #215 and ③ ♂ (?) [presumably #133].

Birds are mostly back by the '75 nest tree or beyond, where I'm going to check the hole.

28 April 1600. A noisy ♂ bird (probably the wing-streamered ♀) flushed out of the '76 nest hole.



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Melanerpes formicivorusLower Arnold 2Hastings Reservation29 April

1530. With a bird flushing out of the '76 nest hole again as I arrived, I went up and opened the nest, finding 6 eggs inside. Since there are 2 ♀♀ here, a return tomorrow to recheck the eggs and to measure them is definitely in order.

30 April

1430. Opened and measured the eggs this time, of which there are now 7: 4 big and 3 quite small, but not quite runts. Eggs were pretty cold.

1 May

1530. Nobody flushed out of the hole, but the eggs were warm, and there were still the same 7 of them.

3 May

1445. Bird flushed from hole.

5 May

1805. " " " "

6 May

1500. Nobody in hole. Worried because of the cold weather, I went in and checked: all 7 were still there, and they were not cold.

10 May

1630. Bird in hole. No sounds from within, however.

13 May

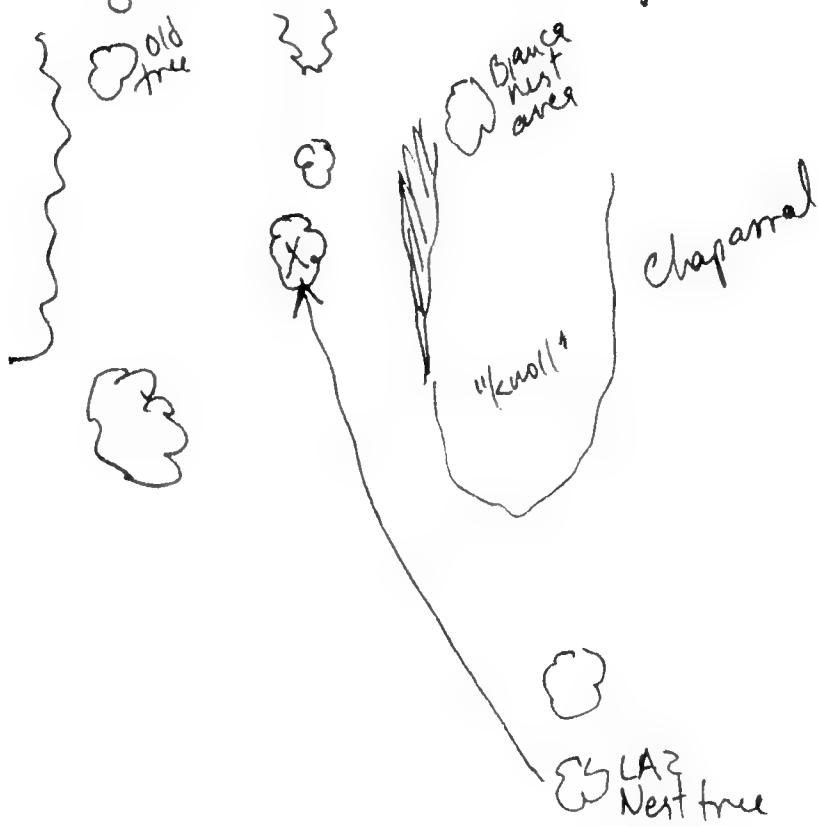
1145. A ♀ with a R. wing-streamer (#215, presumably) flushed from the nest and flew over almost to the central part of Bianca's territory! (See map on back). Climbing up, I discovered that the babies have indeed hatched. (Hole was not opened yet, however). I did count stores, however: 105, all in the outer Blue Oak nest tree.

1500. Went up to the hole. At first everything seemed dead, but in fact here was the present state of affairs: 3 of the eggs hatched; of the 3 very young (0-1<sup>st</sup> day) young, 1 was dead, the other 2 were all but dead, not being strong enough to rasp, right themselves, and barely moving at all. The 2 "live" young were replaced. None of the 3 small eggs were fertile, nor was egg #1, all of which were removed.



13 May

Flight of ♀215 as she left nest hole:



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Melanerpes formicivorusLower Arnold 2 Nest Record

28 April 1600

29 April 1530

30 April 1430.

1 May 1530.

6 May 1500.

13 May 1145.  
1500.Hastings Reservation

Bird first flushed from nest hole

Bird flushed from hole; hole opened;  
6 eggs, not measured.

7 eggs, measured:

① 27.5 × 19.7    ⑤ 22.9 × 16.0

② 28.0 × 20.1    ⑥ 22.7 × 17.3

④ ⑦ 27.3 × 20.2    ⑦ 22.2 × 16.4 <sup>dent</sup> in egg

③ ⑧ 27.5 × 19.9

Still the same 7 eggs, warm.

Still 7 eggs.

Hatching has taken place.

Nest failing. See notes.

Eggs ④, ⑤, ⑥, ⑦ infertile. <sup>Egg ① with small</sup> embryo.



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Melanerpes formicivorusLower Arnold 2Hastings Reservation

(13 May)

Clearly, however, the other 2 chicks will starve within the next several hours. Despite today being relatively warm compared to the last week, obviously conditions just were not good enough for this group.

The 4 eggs were opened: egg 1, the large one, definitely had a yolk (broken), as well as a small (6mm) <sup>[see below]</sup> embryo. As for the 3 small eggs: ① Yolk but no obvious <sup>yellow mass</sup> embryo; ② Yolk and 15mm <sup>yellow mass</sup> embryo; ③ Yolk and 7mm <sup>yellow mass</sup> embryo.

The 4 masses were later examined microscopically: indeed, only the large egg contained a formed embryo (5mm in length); the other masses were all non-embryonic.

17 May

1810. No one here. No sounds from hole. Nest clearly defunct.

24 May

1645. " " "

31 May

1100. 1 bird sitting in the perch tree; no one in the holes.

5 June

1545. Nobody seen here.

✓ 13 June

1400. Counted stores: 24, all low in the outer Blue Oak.

22 June

1930. Watching.

1934. 2 birds greeted in outer area, inc. ♂ #133. Flew into background.

1945. ② ♀ <sup>LP/DB-wh(n)</sup> LP/ 213 walking around the Blue Oak nest tree.

2000. Enough for now. The birds are clearly still here, at least.

✓ 12 July

915. Only 4 apparently intact acorns remaining; the stores here are finally functionally depleted.

1 August

1010. ♀ LP? (could have been either ♀) in perch tree.

I suspect that she was <sup>♀ 215</sup> ~~215~~, however.18 September

♂ 133 seen by Pam at the Arnold Spring this evening.

✓ 24 September

1215. 5 fresh, green acorns in the outer Blue Oak here. Also 2 birds seen in the vicinity.

1545. ① ♀ wh/DB-wh(n) #213 in outer tree. ♂ [?] seen earlier.



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Melanerpes formicivorus

Lower Arnold 2

Hastings Reservation

(30 September)

1750. Watching again.

1805. ♀ub intruder chased out of outer tree by a ♂ bird.

1810. Leaving. Birds are a little too wary when I'm not in a hide.

2 October

1400. Watching from hide.

1420. 2 birds: ① ♀yel/DBW(L) #213 and → ② ♂<sup>M/LB</sup><sub>LB/R-W-R</sub> #204 (A3).

This latter bird was here for several minutes and was not harassed in any way, nor did he look ill at ease.

1445. Some intruder landed in the outer tree and was immediately chased by ♀213. ♀213 has lost her Pink band on the Right leg.

1452. ! Also here is a ♂<sup>Or/Mauve</sup><sub>Poor shape</sub> #122! Definitely him; also ♀213 here at same time. Looks very doubtful for ♂133. ♂122's left leg is only barely functional - he can only hang onto a branch for a few seconds with it. (Of course, it's been like this for 1-2 years now at least!)

1500. Going to check nets.

1545. Back again.

1605. ♀213. Now also ♂122 in the tree.

1630. ♂<sup>Wh/DB-Wh</sup> #126 here for a couple of minutes. (?) ♂122 still in the vicinity. Perhaps this partially explains the close connection between UA2/LA2 these days, with birds seemingly flying from one to the other.

1645. ♂122 and ♂126 landed here together.

1700. Leaving. No sign of ♂133 or ♀215; meanwhile the A3 ♂♂ have clearly taken over. Sorting out which ♂♂ are in which group (A3, UA2, or LA2) will still be a while, though.

8 October

23 October

♂♂126 and 204 seen up at A3! See A3 notes.

1140. Watching here. ① ♀LP/DBW(L) #213 in outer tree. ♂ in perch tree.





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Melanerpes formicivorusLower Arnold 2Hastings Reservation

(23 October)

1150. I was unable to get the bands of the ♂, but from his behavior when he stretched it appeared that he had a bad left leg, and thus that he might be ♂122.

1155. ♀213 back in Blue Oak.

1200. ♂ <sup>wh/DB-wh</sup>/<sub>M</sub> #126 now hawking in Blue Oak. Now with ♂ <sup>DB</sup>/<sub>DB/M</sub> #123!

1207. One of the ♂♂ just took off for UA2-A3 area. ♀213 still here.

1210. A chase of somebody near the Blue Oak.

1230. Moving to watch "top" tree, where there is still lots of activity. As for here, it is still not entirely clear which A3-UA2 ♂♂ are living here (except, perhaps, for ♂122), but it is clear that several have moved here replacing ♂133. ♀215 is gone also, I'm afraid.

1245. ♂ <sup>Or/Mauve</sup>/<sub>Mauve</sub> #122 seen near site of action at "Top tree." Mostly, however, all I keep seeing are unbanded birds.

1300. Leaving. I've gotten perhaps 10-15 good looks at the birds chasing each other and picking acorns from the Valley Oak here, every one of which, including ♂♂, ♀♀, chasers and chasees, was an unbanded bird! Hopefully these birds are indeed from off the study area. Apparently this tree has been keyed into because it is ~~is~~ peripheral to the established groups, and the chasing in the surrounding areas is mostly of spillovers or birds in transit to/from this area.

24 October

930. Watching once again in good light just to be sure.

935. ♂ ♀213.

945. ♂ <sup>Red</sup>/<sub>DB-wh(n)/M</sub> #121! Argh! [This bird's left leg (with the metal band) does not look too healthy either].

950. ♂ <sup>wh/DB-wh</sup>/<sub>wh/M</sub> #126 landing with acorn, greeted by the ♀.

953. Bird (prob. ♂126) now flying up to UA2 area.



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Melanerpes formicivorus

Lower Arnold 2

Hastings Reservation

(24 October)

1000. Somebody just got chased out of the central area here.

1003. Another intruder brought both ♂♂ Or/Mauve #122 and ♂♂ DB/M #123 to the Blue Oak to help chase him off. ♀ 213 with them (♂ 121 not here)

1010. Going up to check at UA2. Offhand, unless something is going on up there, I can't think of any reason not to have at least ♂♂ 122, 123, + 126 be resident here.

6 November

Purge:

♂ 133. Last seen (by PLW) at the Arnold Spring on 18 September (previously seen here on 22 June) gone for sure by 2 October → Disappeared about 25 September ± 1 week. Fam described this bird well (e.g. faded bands) and saw him quite well drinking from the spring on 18 September; obviously something happened shortly thereafter, however.

♀ 215. Last seen flushing from the nest on 13 May, gone most likely at that time or by 22 June → Disappeared about 31 May ± 2 weeks. Though no good censuses were made, this bird, with her wing-streamer, was notably absent after the nest failure here.

Add:

♂ 122. Moved here as adult ~~on~~ about 25 September.

Others (♂♂ 121, 123, 126) await one more check of the area.

14 November

940. Watching.

942. ♂♀ LP/DB-WH(u) #213, in Blue Oak. Just sitting.

1006. ♀ back with a ♂ right-legged ♂ #122. Seen later: ♂ Or/Mauve #122. -Bad-

1010. ♂♂ WH/DB-WH #126.

1023. ♂♂ DB/M #123.

1032. ♂♂ DB-Bd(u) #121.

All here. Now for a final check up at UA2 (birds are still flying up & in that direction).



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Melanerpes formicivorusLower Arnold 2Hastings Reservation(14 November)

1037. Ops! Just when I think everything's settled I get ♂ LB/R-W-R #204 from A3. Nonetheless, the other 4 ♂ seem to really live here; this guy (even though he's here hawking from the Blue Oak) is still pretty well connected with A3 (this may be changing for all I know, however).

1040. Leaving.

1050. Something seems odd about the stores here: as far as I can tell there aren't any in the Valley Oak, and ~~not~~<sup>hardly</sup> enough for 5 birds in the Blue Oak...

26 November

Add ♂ 123, 126, and (for now at least) 121 (who might ~~be~~ be returning to A3 rather than following his colleagues here); moved here as adults ~~25~~ 25 September.

18 December

Flushed 2 birds as I came over to count stores, but they only have about 65 acorns here and I would be surprised if they make it through the winter.

31 December

Best I can tell, the stores are essentially depleted here (I couldn't come up with any that were definitely intact). I didn't see any birds here either. My guess is that this group will shortly disband, if it hasn't done so already.



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Melanerpes formicivorusBiancaHastings Reservation15 January

Counted stores and took acorn samples:

Woonenoll: 408 (35)

Main tree: 208 (65) \* The entire primary storage limb

from the '76 nest hole up has fallen with a loss of the remaining acorns (600+) and 1500-2000 holes. Remember that they just lost 1000+ holes from another limb here in winter '74-'75. Very interesting.

"New area": 273

Blue Oaks: 182

Old tree: 188

1259

25 January

Saw ♂140 when I came over to look at the downed limbs again. I can see no evidence that the acorns are being removed; i.e. that the birds are reclaiming them at all.

Also, it looks as though no good roost/nest holes were lost (except for the 1976/7? hole which was split in two).

10 February

1020. Watching.

1040. ① ♂<sup>Red/Wh</sup><sub>Red</sub> #142 in upper part of territory. Several

Starlings up there also.

1044. Now several birds up there - one of the ♀♀ eating Q. lobata buds. ② ♀<sup>Yellow</sup> / <sup>LB</sup>Blue #141. ③ ♂<sup>Or/Wh</sup> #214.

1055. ④ White #140

1102. ⑤ ♂<sup>LBW</sup> #217 eating buds. ⑥ ♀<sup>LB</sup>Blue/<sup>Or</sup> #303.

1135. ♀303 is up here sapsucking at the moment

1220. Leaving. ♀304 probably gone; I don't know about the other two.

14 February1030. Watching upper area. ① ♂<sup>R/W</sup> #142 here.1040. ② ♂<sup>ub</sup> sapsucking; ③ ♂<sup>Wh</sup> #140 joined him.





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Melanerpes formicivorusBiancaHastings Reservation

(14 February)

1045. ♂♂ or WH #214. Also ♀<sup>yellow</sup> #141.1120. ♀<sup>LB</sup> Blue/or #303 sapsucking up here now.1200. A quick chase led me to ♀<sup>yellow</sup> / DB-WH(n) #213, who is up in the sap area and apparently getting chased around.1205. Now ♀213 and ♀303 near each other in <sup>corral</sup> ~~top~~ area.

1210. ♀141, others now in corral area. Several up here now eating oak buds off the branches.

1215. Leaving. It would appear pretty certain that ♀304 is gone for good. Somehow it seems less reasonable that ♀251, an adult, should have disappeared also, but I can find no trace of her either. ♀213 presumably just was wandering back to the home territory for a brief visit.

10 March

1200. Counted stores: Knoll Valley Oak: 0

Main tree: 152 (total holes left ≈ 380)

"New" area: 309

Blue Oaks: 230

Old tree: 0

691

13 April

1430. Counted stores: Main tree: 123

New area: 273

Blue oaks: 268

664

Sitting around daydreaming, Ms. Bianca (#140) came into view in the Old tree.

17 April

♂217 seen at Black Oak.

18 April

1145. Holes checked; no one in any. One furtive ♀ was seen in the area and after a few minutes was getting silently chased by another bird by the main granary. A further bird was flushed from the upper area near the old corral.



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Melanerpes formicivorus

Bianca

Hastings Reservation

24 April 1515. Nobody anywhere anyhow.

26 April 1140. " "

29 April 1530. Some calls by the main granary while I was arriving, but all had conveniently disappeared by the time I got there.

1 May ~~1545~~. 1545. Several birds flushed from the area, including dear old Miss B.

3 May 1500. 1 bird up in the Old Tree, but none else in evidence and there wasn't anyone in any known hole.

4 May 1930. Bird flushed out of the central area, very possibly from the '75 nest hole. Otherwise I did not check holes.

5 May 1810. First I flushed Miss B. from the Old Tree; then, going over to the main area, I called out and 3 birds flew from the old nest hole in the Main Tree below the '76 hole that broke off last winter. At that point I decided that it was rather cold and all and that I'd best leave everybody alone at this point and so left.

6 May 1445. Nobody in any holes here.

10 May 1700. Nobody anywhere. I did count stores best I could, though: Main tree: 62 }

"New" area: 197 } 259 Pretty slim compared to

what it was at one time. Nonetheless, this does not explain their failure to come up with a nest as yet. What's up?

13 May 1200-1230. Flushed one bird from the main tree; several others were around too so I sat up on the hill and watched for a spell. Soon 5 birds appeared, inc. dear old Ms. Bianca himself. They all pretty much just sat around, though one climbed on top of Ms. B. at one point briefly. No interest in holes was discerned, but the time must be near.



Melanerpes formicivorusBiancaHastings Reservation17 May

1815. Walked over to the main area; suddenly an ub♀ popped out of nowhere. She was no doubt an intruder, remaining to investigate holes instead of flying off like any self-respecting resident. As I left 23 AW flew high above the area headed toward LA2, but I have no idea who they were. Otherwise, nothing.

19 May

1635. Bird flushed out of one or the other of the holes in the Black Oak. Geo wickers!

21 May

1630. My hopes for this year jumped again with Bianca himself in the lower hole in the Black Oak; I sawed it opened to find 3 fresh eggs which were numbered (but not measured). (The upper hole here, where the single runt egg was laid last year, had a very loose keyhole cut, which may have contributed to their choice of this new hole).

22 May

1400. At least 5 birds flushed from the Blue Oak storage area as I arrived (inc. Ms. B). Nobody, however, was inside the nest hole when I got there and the nest still has only 3 eggs (checked carefully with my mirror). I did fix the cut to the other hole, however.

24 May

1630. Flushing a bird from the nesthole, I opened it up to find the same 3 eggs, which I duly measured.

31 May

1105. ♀ in hole; didn't hear any raps, but I didn't flush her, either.

5 June

1530. Bird <sup>in</sup> ~~in~~ hole, but I didn't hear anything when he flushed (but surely they've hatched)

12 June

1830. Bianca in hole. All 3 babies, marked, measured, and in goat shape. All 3 will be normally pigmented, I'm afraid.

15 June

1715. Watching from hide. Several birds in lower side of area.





Melanerpes formicivorusBianca Nest Record

19 May 1635

21 May 1630

22 May 1400

24 May 1630

Hastings Reservation

Bird flushed out of hole

Bird in hole; opened, 3 eggs,  
marked 1-3.

Still 3 eggs.

Bird in hole; <sup>same</sup> 3 eggs

① 25.5 × 20.4

② 25.3 × 20.4

③ 25.0 × 20.8

12 June 1830

(413)

① ~~Mauve-Blue~~

26/14.6

53.9 21.7/3/4

87/20.8/18.2

79.1 23.0/60/46

toe 4



Hole opened; 3 babies

② Or-Brown (411)

27/16.2

58.2 23.6/6/6

98/22.6/18.1

87.1 24.4/72/50

③ H-W (412)

26/16.2

56.8 23.3/4/5

90/20.9/20.1

82.0 25.1/64/46

25.4

12 June 1830

25 June 1400



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Melanerpes formicivorus

Bianca

Hastings Reservation

(15 June)

1727. ♀ub (intruder?) near me and the hide. Doesn't look particularly at ease.

1730. ♂♂ Bianca ~~at~~ now right in front of me; the ♀ in a nearby tree.

1735. Some vocalization-less chasing in the nest tree; ♂140 flew over there (♀ub probably disposed of).

1745. A ♀ up in the old tree, probably #141.

1758. ♂♂ Or/Wh #214 sapsucking in a Live Oak near the nest.

1808. ♂♂ ub preening in front of me, a 2<sup>nd</sup> ♂ there briefly as well.

1835. Babies just got fed. I'm not impressed with my location. I shall have to try again later. Several birds busy sapsucking.

1845. ♂♂ Red/Wh #142 in far perch tree. There are 2-3 ♀♀ here as well.

Counted stores: 187, all in the "New" area.

17 June

1120. Watching from hide.

1130. ♂♀ Yel. Red/Lc #141 in Blue Oak just in front of me.

1133. ♂♂ Or?/Wh #214 (possibly 142) now near same area.

1135. Babies being fed some acorn bits by one of the ♂♂.

1139. ♂214 definitely in Old tree above me.

1150. ♂♀ Blue #303; ♂♂ Red/Wh #142, and ♂♂ ub.

1205. One of the ♂♂ is scanning from a perch here with a definite Tipulid coming out of his bill.

1210. ♂♂ LG/LW #217 here after all (seen in a dominant role assuming an acorn over ♂214).

1216. Well well: ♂♀ H/Light #251 even is here!

1240. Finally ♂♂ Wh #140 from that little sap tree.

1250. Leaving. All is well, save for ♀304, who is surely gone. Birds are eating acorns, hawking, and sapsucking.



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Walter D. Koenig

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Melanerpes formicivorusBiancaHastings Reservation25 June

1400. Banded the babies as #411, 412, &amp; 413.

26 JunePurge: ♀304. Last seen 14 Oct. 1976; gone by 21 December;  
→ Disappeared about 18 November 1976 ± 1 month.✓ 30 July

1800. As I'd more or less feared, these birds are plum out of stores.

1 August

725. Watching. ① ♂ Or/Wn #214 flew by.

735. 4+ birds by the upper corral inc ≥ 1 juv. ② ♂ Red/Wn #142.

746. ③ j Red/Or-Dr #413. ④ ♂ ub. j413 has real strong tail bars.

753. ⑤ ♀ Wn-Or/Lg #141. Birds are over in the forest here, probably  
sapsucking. They come out where I can see them here just to  
rest temporarily.

800. 3 ♂ Or/Wn and Red/Wn #142, 214 here together.

853. ⑥ ♂ Wn #140. ⑦ j M/Lg #411.

954. Lo and behold. ⑧ j Wn-DB/Wn #412. All 3 are here.

1005. Leaving.

20 August

♂ 140 seen, plus ≥ 1 juv. and several others in the area.

24 September1230. Counted stores: "New" area: 94  
"Main" tree: 45 } 149  
Old ST: 10

Watching for a bit at the upper edge.

1235. ① j Or-Dr/M #413. Still ♂-type. ② ♂ ub. ③ ♂ Wn #140.

④ ♀ LB/Or-Lg #303. ⑤ j ♂ M/Lg #411. (but possibly molting to ♀)

1300. ⑥ ♂ Or/Wn #214

1325. ⑦ ♂ LGW #217. ⑧ j Wn-DB/Wn #412. Also still ♂-type. ⑨ ♀ Wn-Red/Lg #141.

1330. Leaving. Not everybody, but still pretty good for an hour census.

30 September

1500. Watching. Birds in main storage area and in upper area.

① ♂ Or/Wn #214; ② ♂ 140; ③ ♂ ub.

1530 Not so good after all. Moving on



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Melanerpes formicivorus

Bianca

Hastings Reservation

(30 September)

1545. In tall Valley Oak on top of the field toward A1 is j (possibly → ♀) ~~Red/Or~~ - #413.

22 October

1700. Chasing of 2 ub birds (1♂, 1♀ apparently) up at the upper end here; one bird doing some of the chasing is ♂ DB/LG #411.

1713. ♂ WH #140 in main area with lots of others. ♂ Or/WH #214.

1725. ♂ WH-DB/WH #1412. Also one bird seen flying overhead with an acorn in its bill heading straight down towards Jimmy's corral! This is perchance partly where the intruders are coming from.

1735. ♂ 214 displaced an intruder from the Old storage tree.

1740. 2 birds flying high up the canyon from Jimmy's and landing in the old tree together were immediately displaced by ♂ 214.

1745. ♂ 216L #217.

1800. Leaving. Still some chasing going on and birds around, but it's too dark to see much anymore.

23 October

1030. Watching. ♂ 140 flushed from main area.

1050. Light is bad down here. Moving to upper area.

1055. ♂ FLB/Red-L #303 here in large Valley Oak at upper edge.

1100. A good chase going on up here at the moment.

1103. ♂ Red- / M probably #413. There are birds all over the open field area up here, coming no doubt from most of the surrounding groups and even beyond.

1110. ♂ ub, apparently the resident. ♂ OR/M #217. An intruder flying in from the field was chased out even before he landed!

1120. Even this is not quite getting me what I want, whereas all the isolated trees up here in the field are loaded with birds. ~~During~~ - (Bianca birds are flying at least as far as the "Top" Valley Oak here (in A1) for acorns.





Melanerpes formicivorusBiancaHastings Reservation

(23 October) 1132. @ 3 DB/16 #411 hawking in upper area. Moving over to LA2.

18 December

Counted stores: Old tree: 69

Blue Oaks: 155

Main tree: 15 (the last remaining storage limb

in this tree has recently fallen, entailing a loss of  $\approx 200$  stored acorns and about 400 holes. The entire tree has about 150 holes left to its name. A sample of 100 acorns was taken from the fallen limb.)

Black Oak: 35

"New" area: 248

Other Valley Oak: 0

522

Miss Bianca (#140) and several other birds were in the area.

31 December

More losses: the "Old tree", with only 69 acorns as of 18 December but perhaps as many as 500 holes still functional, fell entirely - within the last 2 weeks.

A ♀ was in a hole in the Valley Oak nest tree (below the former '76 nest hole, now defunct), as I surveyed the rest of the area.















